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APPENDIX A

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Department of Health
Government of the Northwest Territories

A Health Human Resource Plan for the Northwest Territories

December 1993

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INTRODUCTION

Human resource planning is a continuous process of developing strategies to meet evolving human resource needs. This document describes the present health employment situation in the Northwest Territories (NWT) and the planning strategies already in place for attracting aboriginal people into health professions and health management, for affirmative action and cross-cultural orientation and training. The report also identifies objectives and targets for future strategies. Aboriginal affirmative action planning is a key focus, reflecting the unique cultural realities of the NWT.

The NWT health and hospital boards function with considerable latitude in attracting, hiring and retaining their staff. The role of the department is to provide boards with advice, guidance and support, and to coordinate activities at their request. This document outlines plans for assisting boards with the development of their own human resource plans.

The health human resource plan for the NWT is based on a statement of purpose and set of guiding principles developed by health and hospital board chairpersons and senior management of the department.

Statement of Purpose:

- The Northwest Territories health system is an evolving partnership which seeks to maintain or improve, within available resources, the healthiest possible communities, built from mutual respect, traditional knowledge and values, and individual responsibility.

- Health is defined as a harmony of body, mind and spirit, derived through continuous learning, consultation and commitment.

Guiding Principles:

- Health is a concern and responsibility of society.
- Individual and community responsibility and actions toward health will be promoted and encouraged.
- The people will be actively involved in health planning, management and decision-making.
- The linguistic, cultural and spiritual values of residents will be reflected in the health system.
- Protection will be encouraged and provided against infectious disease, injurious substances, and harmful practices.
- Required and effective services will be available and accessible to all persons, and provided in a manner acceptable to them.
- Services will be provided by the most appropriate provider, and as close to home as possible.
- Services available within the NWT will be maximized.
- Services will be provided in the most efficient and economical way, and within existing resources.
- Aboriginal peoples will increasingly be involved as service providers, managers and decision-makers.
- Opportunities for education, training, employment and economic benefit for residents will be provided or encouraged in the operation of the system.

This plan will require regular evaluation, updating and ongoing development as the health human resource situation in the NWT develops.

HEALTH HUMAN RESOURCES IN THE PAST

Aboriginal People as Health Practitioners

Aboriginal people have always had healing skills, with knowledge based on their acute observations and experiences.

The arrival of Europeans in North America brought diseases unknown to First Nations people and their healers. Although these individuals brought knowledge about these new diseases, they also brought a belief in science which did not recognize the knowledge and abilities of aboriginal people. The early colonial health practitioners in the North thus imposed a European model of medical services on the northern people.

Aboriginal health knowledge and practitioners continued to go unrecognized as health services became more formalized. Southern style health services became entrenched in the North under the management of non-aboriginal health practitioners. The extensive education expected to provide these services was not practically available to most aboriginal people and made it hard for aboriginal people to see themselves working in this new health system.

A Health Practice Model to Fit the NWT

Although the system developed in the North has not built on aboriginal knowledge and abilities, it has been adapted to northern circumstances in unique and creative ways. The challenge of providing health care services to small numbers of people over very large land areas led to the development of nursing stations in communities.

Southern nurses with advanced training provided public health and primary health care services, using physicians and medical travel services as backup. The use of community health workers and nurses as the first contacts or entry points into the health care system allowed these employees to develop and use their skills more fully than they could in the South.

HEALTH HUMAN RESOURCES IN THE PRESENT

The Preferred Health Service Model

Although the model of health services using nurses and community health workers was first developed to deal with circumstances where physician-based services were inappropriate, it is now attracting attention as the most effective model of health services delivery in other more populated areas for two reasons: nurses and community health representatives (CHRs) have a strong focus on promoting health and preventing illness; and both groups of practitioners are skilled at providing primary care.

- This supports the guiding principles that effective health services will be provided in the most efficient and economical way and that individual and community responsibility for health will be promoted.

The primary health care role of CHRs and nurses, with physicians acting as consultants and specialists, enables these practitioners to use their skills at the most appropriate level.

- This fits the guiding principle that health services will be provided by the most appropriate provider and that they will be provided as close to home as possible.

The model also allows for the development of practical strategies for increasing the number of aboriginal people working in the health system.

- This supports the guiding principle that aboriginal people will be increasingly involved as service providers, managers and decision-makers.

The Present Health Human Resource Picture

The numbers and types of health service employees and practitioners in the NWT reflect to a large extent the primary health model that is in place in the smaller communities. In particular, nurses are the largest single practitioner group. CHRs are key health promotion practitioners and the second largest community-based practitioner group. Physicians form a relatively small group. They are located in regional centres from which their consultation services are available and in the larger communities where more traditional physician-based services remain, as in hospitals.

There are 1351 health employees within the Government of the Northwest Territories (GNWT). The larger practitioner groups include (October 1993):

- 379 nurses (six are aboriginal)
- 65 clerk/interpreters (all are aboriginal)
- 51 physicians (none are aboriginal)
- 37 certified nursing assistants (CNAs) (5 are aboriginal)
- 35 CHRs (all but one are aboriginal)
- 24 dental therapists (1 is aboriginal)
- 24 dentists (none are aboriginal)
- 24 laboratory technologists (1 is aboriginal)
- 14 radiology technologists (1 is aboriginal)
- 7 ophthalmic technicians (1 is aboriginal)

Educational Opportunities

Ready access to health career education will influence the ability of residents of the NWT to become employed in the health care system.

- Formal training opportunities to enter health careers are available in the NWT for community health representatives, certified nursing assistants, ophthalmic technicians, and registered nurses. The Access year for the Northern Registered Nurses Program started September 1993. Arctic College delivers all of these programs except the Ophthalmic Technician Training Program operated by Stanton Yellowknife Hospital. All other health career entry training must presently be taken in the South.

- Continuing education programs in the NWT available to health service employees include the Advanced Nursing Skills In-service Program (ANSIP), medical interpreting, and management training through the Arctic College Certificate Program and the Public Service Career Training Program (PSCTP), managed by the Department of Education, Culture, and Employment.

- Health career training programs tend to require extensive teaching expertise and equipment resources for clinical practice learning. Setting up training programs in the NWT is most practical for occupations that have large numbers and where the training time is not too long. The new northern registered nursing program fits these criteria well.

- Residents of the NWT wishing to study for a health career either in the NWT or a southern school have access to student financial assistance from the Department of Education, Culture and Employment.

Other Factors

- **Decentralization**

  Decentralization is designed to increase the number of GNWT positions in the regions. Decentralization of headquarters functions in the Health Insurance Services Division has increased training and employment opportunities for residents of Inuvik and Rankin Inlet. Aboriginal people will benefit from this initiative.

- **Community Transfer Initiative (CTI)**

  The Community Transfer Initiative is designed to increase local responsibility for planning and managing local government services. Some communities have indicated interest in managing components of health services. Support and coordination of human resource planning for transferred health services will need to be part of the CTI planning process.

- **Nunavut**

  Planning for the creation of Nunavut must be a part of the process.

  A key issue for the health human resource plan is the need to develop aboriginal managers for both headquarters functions and board management. Health management and officer positions require individuals with health practice and management training plus experience. Strategies using training positions will be essential for fast-tracking aboriginal people with beginning skills to prepare quickly for key health positions in Nunavut.

DEFINING FUTURE HUMAN RESOURCE NEEDS

The purpose of the health human resource plan is to ensure the health system can obtain and retain competent staff. To be competent in the NWT, health service staff need to have clinical, planning and managerial skills, and abilities to work within the cultural realities of the NWT.

Finding satisfactory ways to balance the need for technical and professional skills with the need for cultural knowledge has been difficult. Few aboriginal people in the NWT have obtained the levels of education required to meet expected standards of health practice and management. Few southerners come with knowledge and ability to apply health concepts within the aboriginal cultures.

Ultimately, the health service work force should be competent in clinical and management skills, and reflect the cultural status of the population of the NWT. There is work to be done to meet both of these conditions.

The present population of the NWT is:

- 17% Dene, 6.8% Metis, 36.5% Inuit and 39.7% non-aboriginal (1991 census).

The cultural mix of health service employees is:

- 7% Dene, 4% Metis, 14.1% Inuit, 0.8% southern aboriginal and 74.1% non-aboriginal (September 1993).

The target is to have the cultural mix health service employees reflect that of the NWT population.

The challenges, therefore, are to:

- promote health careers among residents of the NWT to increase the number of aboriginal health career students and future employees;
- support the development of entry level health career positions and health career training in the NWT;
- support NWT health career graduates to obtain the experience required to advance their careers as practitioners and managers in the health system;
- support the maintenance and development of competency of all health service employees;
- assist all employees to function competently within a cross-cultural environment; and
- continue to support recruitment of competent health employees from the South when necessary and ensure their effective orientation to the cultures of the NWT.

THE PLANNING PROCESS

The previous discussion outlines the NWT health human resource situation today and identifies the challenges. The next step is to develop strategies to meet these challenges.

The process of planning is important. A Health Careers Advisory Committee has been operating since September 1991 to provide input into career promotion planning. The committee's role was recently expanded and the group renamed the Health Human Resource Advisory Committee. Committee representation includes the Departments of Health and Education, Culture and Employment; and the Financial Management Board Secretariat. Many other stakeholders have an interest and a role to play in health human resource planning. Links have been established with the Native Women's Association, the Dene Cultural Institute, Metis Heritage Association and Pauktuutit, Inuit Women's Association.

Present strategies have been developed in consultation with interested parties, including health board representation. Further consultation with board and department managers will follow the development of the health human resource plan.

Future needs and targets are difficult to project from current information. Some known factors include:

- if Arctic College graduates 15 aboriginal nurses a year starting in 1996, it will take 15 years for those graduates to make up 60% of the nurses working in the NWT health system;
- the demand for CHRs requires training of 8-12 CHRs annually;
- in order to have 25 aboriginal officers or managers trained through two-year training programs between 1993 and 1999, a minimum of 5 training positions per year (10 trainees in place each year between 1994 and 1998) need to be established.

STRATEGIC PLANS

AFFIRMATIVE ACTION PLANNING

Aboriginal affirmative action planning is a key focus of the health human resource plan.

All strategies within the plan will contribute to affirmative action by increasing the number of aboriginal people as employees in the health system or supporting the career development of aboriginal employees.

Affirmative action strategies are supported by management commitment to this plan and, in particular, to:

- consistent use of open competition when hiring, and application of the affirmative action staffing guidelines;
- identification of target positions in headquarters and boards for affirmative action hiring either directly or through establishment of training positions;
- use of funds for training positions;
- allocation of funds for internship positions for new health career graduates.

STRATEGIES TO ATTRACT AND SUPPORT ABORIGINAL PEOPLE TO ENTER THE HEALTH PROFESSIONS

Mission Statement

To attract and support Northerners to enter health careers so that the work force of the department and regional health and hospital boards becomes representative of the cultural mix of the population of the NWT.

Background

Health services in the NWT have been dominated by southern practitioners and managers throughout its development under the federal government and, more recently, under the GNWT. There are few aboriginal role models in the health services to stimulate aboriginal interest in health careers.

The standards of practice and management expected of the health services today most often require post-secondary school training. However, with the high rate of leaving school early in the NWT, there are limited numbers of Northerners available to attract into health career training.

Studies have shown that factors which contribute to leaving school early include:

- community people are unclear about the value of education and are dissatisfied with their input and control of education;
- students are uncertain about their future, or have unrealistic expectations for their future;
- the home environment of many students does not support or interferes with study; and
- the learning activities of schools often do not stimulate quality learning by aboriginal students.

Studies have also found that the following factors inhibit choice of health careers:

- career counselling resources in schools and communities are limited;
- knowledge and information about health careers and training opportunities and requirements are lacking;
- lack of aboriginal role models provides no examples for aboriginal students and does not encourage their aspirations;
- the length of time required for training is discouraging; and
- often the training requires the student to leave the NWT.

Promotion of health careers must include career counselling, the provision of health career information, encouragement to stay in school, and the use of aboriginal role models.

Strategies (see Appendix I for detailed information)

Strategies to promote interest in health careers:

1. identify aboriginal role models in the health system, and promote their success and visibility;
2. develop, maintain and distribute up-to-date health career information relevant to all age groups in the NWT;
3. hold meetings with students and teachers, and develop health promotion guidelines for use in communities;
4. manage a summer work and orientation program for high school students interested in exploring careers in health.

Strategies to support health career students:

5. support NWT health career students by monitoring their progress and assisting them to find summer employment;
6. provide student funding information and manage supplementary funding bursaries for health career students.

Strategies to support new health career graduates and employees:

7. develop a funding proposal for an internship program for new health practitioner graduates;
8. develop orientation packages for new health employees, and guidelines for headquarters and board to implement orientation of new employees. The orientation activities include cross-cultural orientation.

Strategies to support future health human resource planning and development:

9. establish a data base of all health practitioners in the NWT and explore development of projections of future health human resource needs for future planning;
10. support health and hospital boards to develop regional health human resource plans, including consideration of community-based, entry level health career positions that can have on-the-job training;
11. evaluate the success of health career promotion and support strategies.

STRATEGIES TO ATTRACT AND SUPPORT ABORIGINAL PEOPLE TO ENTER THE FIELD OF HEALTH ADMINISTRATION

Mission Statement

To develop skilled and experienced aboriginal managers in headquarters and the regional health and hospital boards.

Background

Historically, health service management positions in the NWT have been filled by non-aboriginal people, largely recruited from the South. Hence, aboriginal health manager role models have been non-existent.

The work of management requires some knowledge and experience in the function being managed, as well as skills in planning, organizing, supervising and coordinating. The small number of aboriginal people entering the health services in practice and support roles has limited the availability of people to develop into management roles.

Decentralization, the Community Transfer Initiative, and the creation of Nunavut require the department to make a concerted effort to "fast track" the development of health service managers at all levels. Successful management development processes will require sensitive support that recognizes the impacts of cultural differences and carefully planned, comprehensive training plans. Present managers will be the primary trainers. They will also require good support, cross-cultural learning opportunities, and opportunities to strengthen their staff development skills.

Strategies

Strategies to attract Northerners into health careers will increase the number of aboriginal people ready to consider management roles.

These strategies are intended to develop and support aboriginal people in health management positions:

1. Identify management and officer positions at headquarters and in regional health and hospital boards to be maintained with term appointments and targeted for training positions;
2. apply annually for headquarters and board training positions through the Public Service Career Training Program;
3. develop a funding proposal for a health management training program;
4. develop a proposal for an intensive cross-cultural orientation program for managers to enhance their ability to support aboriginal trainees and employees;
5. provide performance development training for headquarters managers to enhance their ability to develop competency and support the career development of their staff;
6. evaluate the success of the strategies to develop and support aboriginal people in health management.

CONCLUSION

The health human resource plan for the Northwest Territories is designed to develop a competent northern work force for the health system, with aboriginal people targeted for health career promotion and support activities. Specific strategies in the plan have been developed in consultation with stakeholders. The plan will be shared with headquarters, board managers, and the Departments of Social Services and Education, Culture and Employment. It will be used as a basis to stimulate development of regional health human resource plans. Evaluation of the individual strategies and of the overall effectiveness of the plan will guide the further evolution of health human resource planning in the NWT. Development of a strong northern health work force, representative of the people of the NWT, will play a significant role in the progress of the NWT toward self-determination.

APPENDIX I

STRATEGIES TO ATTRACT AND SUPPORT NORTHERNERS TO ENTER HEALTH CAREERS

1. Identify and create aboriginal role models in the health system, and promote their success and visibility.

Need: To highlight the significant contributions that aboriginal people make to NWT health services and present them as role models.

Objective: To encourage aboriginal people to choose a health career.

Target Groups:

- school children
- adults interested in health careers
- graduates from health programs
- residents of the NWT

Activities:

Feature role models on northern television
Feature role models in health career booklet
Develop posters of role models
Organize school presentations by role models in their field

2. Develop, maintain and distribute up-to-date health career information relevant to all age groups in the NWT.

Need: In order to consider a career in health, residents of the NWT need to have access to information about possible health careers and the requirements to enter those careers.

Objective: To ensure availability of up-to-date health career information relevant to all age groups in the NWT.

Target Groups:

- school children of all ages
- adults interested in health careers
- career counsellors
- health practitioners
- aboriginal groups
- day-care centres

Activities: Health Careers Booklet updates
Profile Health Practitioners on Television
Colouring Book: Clara's Choice

Health Career Workbook
Health Career Video

3. Promote interest in health careers through meetings with students and teachers and by developing health promotion guidelines for use in the communities.

Need: To bring information about health careers to students in communities and provide teachers with guidelines for health career promotion.

Objective: To foster community participation in promoting interest in health careers.

Target Groups:

- school children
- community health committees
- principals, teachers, school counsellors
- health promotion officers

Activities: Attending local career days and/or providing information
Offering prizes for health projects at school science fairs
Developing and distributing guidelines on ways to promote health careers to community resources

4. Manage a summer work and orientation program for high school students interested in exploring a career in health.

Need: To provide high school students with an intensive orientation to health careers.

Objective: To motivate and interest students in health careers.

Target Groups:
- high school students from all regions

Activities: Summer Student Health Program

5. Support NWT health career students by monitoring their progress and assisting them to find summer employment.

Need: NWT health career students benefit from encouragement and support during their studies away from their homes. Opportunities for summer work in health services close to home encourage students to continue their studies.

Objective: To encourage and support NWT health careers students to complete their studies.

Target Groups:

- post-secondary health students
- regional health and hospital boards

Activities:

Collect data on health students
Distribute student lists to the boards, encourage student hiring
Contact each student
Track the employment history of NWT health career graduates

6. **Provide student funding information and supplementary funding for health career students.**

Need: To determine the adequacy of health career education funding and having a central source of information for health career education funding including grants, scholarships and loans.

Objective: To ensure the availability of up-to-date information on funding for health careers students.

Target Groups:

- high school students
- adults interested in health career studies
- health career students
- career counsellors
- health administrators and practitioners
- aboriginal organizations

Activities: Health Student Funding Directory
Survey students to determine adequacy of funding for health career studies

7. Develop a funding proposal for an internship program for new health practitioner graduates.

Need: Health practitioner positions in the community health centres and smaller hospitals require staff with experience. A process is needed to enable new NWT health career graduates to obtain experience quickly and under supervision.

Objective: To obtain funding for internship positions and supervisory support to enable NWT health practitioner graduates to practice competently in community health centres and small hospitals.

Target Groups:

- NWT registered nurse graduates
- other NWT practitioners requiring experience to practice in the NWT (e.g. physiotherapy and occupational therapy graduates)

Activities: Develop a program funding proposal

8. Develop orientation packages for new health employees at headquarters, and guidelines for health and hospital boards to implement orientation of new employees. The orientation activities will include cross-cultural awareness.

Need: To have health services managed and provided by well prepared staff who are culturally sensitive.

Objective: To ensure that all new health system employees are adequately oriented to their positions, and are sensitive to the cultures and traditions of their clients and other employees.

Target Groups:

- aboriginal health employees
- non-aboriginal health employees

Activities:

Develop and maintain a department orientation package
Provide department orientation to headquarters staff
Share the department orientation package with boards
Develop a physician orientation manual
Develop a health-focused cross-cultural orientation program

9. **Establish a data base of all health practitioners in the NWT and explore development of projections of future health human resource needs for future planning.**

Need: Accurate information about human resources in the health services is required to identify present and future needs, and to plan activities to meet these needs.

Objective: To ensure the NWT health system has the required human resources.

Target Groups:

- headquarters and board managers
- managers who are responsible for maintaining the human resource data base
- GNWT and Department of Health information systems supports

Activities: Develop statistical reports to identify present distribution

Analyze workload tools and population forecasts to project future staffing needs

Joint project with the Status of Women Council of the NWT to research factors affecting career choice

10. **Help regional health and hospital boards to develop regional human resource plans.**

Need: Health and hospital boards have the authority to hire their own staff and are in the best position to identify staffing needs, career promotion opportunities in the regions, and local human resources. Planning is essential for boards to obtain and retain appropriate and competent human resources.

Objective: For boards to have effective human resource plans which enable them to obtain and retain competent employees who reflect the cultural mix of the region.

Target Groups:

- management of all regional health and hospital boards

Activities:

Share the health human resource plan with all health and hospital boards
Negotiate with the boards to assist them with the development of regional human resource plans and coordinate joint activities
Support board initiatives to explore development of community health centre positions that fit community needs and resources

11. **Evaluate the success of the health career promotion and support plans.**

Need: Assessment of the effectiveness of strategies is required.

Objective: To increase the number of Northerners employed within the NWT health service.

Target Groups:

- all those named in the 10 preceding strategies to attract and support Northerners to enter health careers

Activities:

Identify indicators of success for each strategy
Develop and distribute evaluation tools with each activity
Track the numbers of northern health career students, graduates and employees
Conduct exit interviews

STRATEGIES TO DEVELOP AND SUPPORT ABORIGINAL PEOPLE TO ENTER HEALTH MANAGEMENT POSITIONS

1. **Identify management and officer positions in headquarters and boards to be targeted for training positions.**

Need: There are limited numbers of aboriginal people with the training and experience needed for management and officer positions in the NWT health services.

Objective: To increase the number of aboriginal people in management and officer positions through the use of training positions.

Target Positions:

- management and officer positions that would particularly benefit from having aboriginal incumbents in Department of Health headquarters and boards

Activities: Establish a senior management group to identify target positions
When vacancies occur, fill them with term employees
Develop training positions and plans to train aboriginal people for the target positions

2. **Apply annually for headquarters and board training positions through the Public Service Career Training Program.**

Need: Aboriginal people with front line management training experience require work experience to qualify for officer and management level positions in the health services.

Objective: Skilled and experienced aboriginal managers and officers in Department of Health headquarters and regional health and hospital boards.

Target Groups:

- aboriginal people with diplomas or certificates in health, management or the social sciences.
- aboriginal people with work experience in administration

Activities: Hire two policy officer trainees in Health headquarters through the PSCTP
Offer assistance to boards to apply for PSCTP positions
Assist headquarters managers to develop training plan applications as targeted positions become available

3. **Develop a funding proposal for a health management training program.**

Need: The Public Service Career Training Program does not have enough training positions for developing aboriginal managers and officers in the health services.

Objective: To obtain funding for training positions for the use of department headquarters and board managers, to enable aboriginal trainees to develop skills and experience required to fill management and officer positions.

Target Groups:

- aboriginal people with diplomas or certificates in health, management or the social sciences
- aboriginal people with work experience in administration

Activities: Develop a program funding proposal

4. Develop a proposal for an intensive cross-cultural orientation program for managers to enhance their ability to support and retain aboriginal trainees and employees.

Need: Managers in the health system need knowledge and skills to support employees and trainees from different cultures.

Objective: Management of employees that is reflective and supportive of the cultures of the NWT.

Target Groups:
- headquarters managers
- board managers

Activities: Develop a proposal for an intensive cross-cultural learning experience for headquarters managers
Share the program proposal with health boards

5. Provide performance development training for headquarters managers to enhance their ability to develop the competency, and support the career development, of their staff.

Need: Employees need skilled performance development support from their managers to work and grow to their potential.

Objective: To ensure that all headquarters managers are able to support and develop their staff effectively.

Target Groups:

- all headquarters managers and supervisors
- interested headquarters staff

Activities: Performance development workshops are planned for all headquarters managers, supervisors, and interested staff

6. **Evaluate the success of the strategies to develop and support aboriginal people to enter health management.**

Need: Assessment of the effectiveness of strategies is required.

Objective: To increase the number of aboriginal people in health management positions.

Target Groups:

- the groups mentioned in the five preceding strategies to develop and support aboriginal people to enter health management

Activities:

Identify indicators of success for each strategy
Develop evaluation tools with each strategy
Track the numbers of aboriginal people who are trained and recruited
Conduct exit interviews

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APPENDIX B

Department of Health
Government of the Northwest Territories

Comprehensive Report on the National Health Research and Development Program (NHRDP): North of 60 Special Initiative

December 1993

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INTRODUCTION

In March 1993, the Standing Committee on Public Accounts (SCOPA) tabled its final report on the Public Review of the Auditor General of Canada on a Comprehensive Audit of the Department of Health, Tabled Document No. 5-12(3). SCOPA made 28 recommendations; recommendation 15 requested:

> *That the Department of Health, in consultation with the Northwest Territories Science Institute, prepare a comprehensive report on the North of 60° research Program;*
>
> *And further, that this report should include an analysis of whether funding criteria identified in June 1989 have been met;*
>
> *And further that this report should clearly indicate the respective responsibilities of the Department of Health, the Science Institute, and NHRDP;*
>
> *And further, that this report should be brought to the Legislative Assembly by the fall session in 1993.*

This report, prepared in consultation with the Science Institute of the Northwest Territories, describes both the National Health Research Development Program (the NHRDP or the program) and the "North of 60°" Initiative (the Initiative).[1] It describes the criteria for funding under the NHRDP and the "North of 60°" Initiative, the process by which eligibility for funding is decided, and the respective responsibilities of the Department of Health, the Science Institute and the NHRDP.

The report briefly reviews an evaluation of the Initiative conducted by NHRDP, Health Canada. The evaluation includes a "pre-evaluation report" completed by the Department of Health. Following an outline of some of the salient concerns that have been raised about the Initiative, there is an analysis of the considerations which should be addressed in an effort to improve the Initiative and to develop a health research policy that best reflects the interests of research into the health of people of the Northwest Territories. It is suggested that several critical issues emerge which should be addressed in discussions about improving the Initiative. Finally, in recommending that the Initiative be continued with the ongoing engagement of the Department of Health in its promotion and administration, the Department of Health makes several key recommendations in an effort to refocus health research under the "North of 60°" Initiative.

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1 The assistance and cooperation of the NHRDP, Department of Health, Government of Canada and the Science Institute of the Northwest Territories in the preparation of this report are gratefully acknowledged.

OVERVIEW: NATIONAL HEALTH RESEARCH DEVELOPMENT PROGRAM (NHRDP)

The NHRDP was established in 1975 as an amalgamation of pre-existing federal government organizations that awarded public grants for health-related research in Canada. The NHRDP was established to provide financial support for scientifically meritorious research activities relevant to the goals and objectives of Health Canada. Furthermore, it is intended to help in the creation and maintenance of a cadre of qualified health researchers in Canada. The NHRDP is administered by the Extramural Research Programs Directorate (ERPD), which is a division of the Health Services and Promotion Branch, Health Canada. The ERPD allocates and distributes funding for research on public health on behalf of Health Canada.

The stated goal of the NHRDP is to fund national health research and development which advances the understanding of, and effective response to, national health issues in support of the functions of Health Canada." The key components of the program are the development of health-related knowledge and the "evaluation of new methods and models which will support health care reform and the total health system."[2]

Health Canada's current interests in the NHRDP are reflected in the following objectives:

- to support health research which contributes to the mission. In this regard, Health Canada's stated priorities include: improving health services, promoting health of Canadians and preventing illness;
- to support the development of researchers in areas of special interest (e.g. health promotion and health economics management);
- to support the research career development of researchers, particularly women scientists;
- to ensure that important social issues are addressed in all health research. For example, wherever appropriate, attention is given to particular groups at risk, possible gender bias in health care delivery, and multicultural influences in health care services and research design;
- to provide leadership and infrastructure for the coordination of support and distribution of health research in Canada;
- to support the examination of the ways of converting research results into policy development and practice.[3]

Applications for funding of research under the NHRDP are considered in its review process, which is both rigorous and constructive so that the best possible use is made of public funds. The review process is the ultimate responsibility of Health Canada but its success is dependent upon the cooperation and participation of Canada's scientific community. When an application is received, it is first reviewed by NHRDP staff to

[2] See Health Canada publication, "Projects Guide - NHRDP."

[3] Ibid.

determine its conformity with the required format for applications. If the application is not accepted because of non-conformity with the prescribed format, it is returned to the applicant. If acceptable, it is retained for further review.

First, applications are reviewed by NHRDP staff for eligibility under the objectives of the program. They are also sent to external experts who are knowledgeable in research methodology or who are specialists in a field relevant to the particular proposal. Applicants are permitted to nominate up to three experts to review their submissions provided these experts do not have a conflict of interest with the proposal. However, the NHRDP reserves the right to make its own selection of external reviewers. The external evaluations are then forwarded to the peer review committee to be taken into consideration in the committee's deliberations.

Second, a committee of peers reviews the application for its scientific merit. The number and composition of these committees change to reflect the program's priorities and the type and number of applications being considered, but particular attention is given to the following characteristics in the composition of the committee of peers: expertise, regional representation, language and gender. At this stage of the review, each application is evaluated in depth by two or more committee members, who produce written reports. Each application is discussed by all members and a consensus is reached on the scientific merit of the proposal. The chairperson of the committee then prepares a summary of the committee's recommendation(s).

Applications are then referred to a committee of Health Canada, which is concerned with whether the proposal meets with the current research priorities of the department. Only proposals that relate to departmental programs and responsibilities will be recommended for funding. Applications are also referred to the Department of Health in the province or territory in which the proposal has originated for assessment in terms of particular provincial or territorial programs and priorities.

Finally, before a final recommendation for the proposal can be given by the Department of Health, it may be necessary for the applicant to provide further, supplementary information or to meet certain conditions for funding. To receive a recommendation for funding, a proposal must meet or exceed all review criteria. After the completion of all assessments, and depending on the availability of funds, recommendations for funding research proposals are made to the Minister of Health Canada.

Under NHRDP guidelines, applications may be submitted by researchers sponsored by any Canadian institution, corporation or society including universities; hospitals; provincial, territorial, and municipal government departments and agencies; voluntary agencies and societies; and associations of health professionals. Departments, corporations and agencies of the federal government, however, are ineligible, as are employees of the federal government.

OVERVIEW: THE "NORTH OF 60°" INITIATIVE

In 1988, responsibility for the administration of health services was transferred from the federal government to the Government of the Northwest Territories (GNWT). In the same year, the NHRDP announced a special component of its research funding program, officially entitled the "North of 60°" Special Initiative. Intended to promote research projects that address community health and health services delivery problems in the territories north of the sixtieth parallel, the Initiative has been in operation since 1989. The Initiative's co-sponsors are the governments of the Northwest Territories and the Yukon Territory, and the Science Institute of the Northwest Territories (SINT).[4]

A major reason for establishing the Initiative was to give Northerners a better opportunity to receive NHRDP funding for health-related research. Before the Initiative was instituted, it was felt that people in the North did not have the same opportunities to gain access to financial resources as southern researchers did and could not favourably compete in the regular NHRDP or Medical Research Council competitions.[5] Another major reason for the Initiative is to fund health research that is relevant to the needs of communities.

At the first meeting of the Initiative's proponents in Edmonton, it was agreed that the NHRDP North of 60° Special Initiative was to provide funds and direction for health research to meet the unique demands of the people living in the territories north of the 60th parallel.

Health Canada assigned to the GNWT Department of Health the primary role of administering and promoting the "North of 60°" Initiative in the Northwest Territories. The Department of Health undertook the following tasks in the administration of the Initiative:

1. northern promotion of the Initiative;
2. development of promotional materials;
3. regional presentations;
4. assistance to potential researchers;
5. assistance to proposers;
6. answering queries from the public;
7. administrative assistance to Health Canada; and
8. the preparation and distribution of the review panel packages.

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4 For a brief historical review of both the NHRDP and the "North of 60°" Initiative, see (March, April, 1993) *Can. J. of Public Health*, vol. 84, supplement 2.

5 See *Creating a Blueprint for Northern Health Research*, M. Pontus (Internal Document, Department of Health) 1988, File #112-1-0, 1989, p. 2.

Health Canada's responsibilities under the Initiative, carried out by NHRDP, include:

1. providing the major portion of funding, $264,000, to cover project start-up and infrastructure costs;
2. arranging review panel meetings;
3. arranging for external scientists to review research proposals;
4. ensuring that proposals meet scientific criteria;
5. acting as liaison between proposers and the scientific community;
6. providing "North of 60°" information in federal documents;
7. securing ministerial signature for funding;
8. chairing the review panel meetings; and
9. communicating to research proposers the decisions of the review panel.

The Science Institute of the Northwest Territories also actively participates in the project, particularly through its representation on the North of 60° Initiative Review Panel which makes the assessments on project funding.

As with the allocation of all public funding which must take place within definite budgetary constraints, applicants must meet certain criteria in order to be eligible to receive funding. An initial step in research priorities was made in the summer of 1989 during a workshop entitled "Health Research North of 60°." The delegates identified the priorities for what they believed to be the most important health research issues facing the Northwest Territories and the Yukon. A substantial amount of work was done at this time to formulate the scope and character of the "North of 60°" Initiative. Delegates to the conference, including members of the local research community, health professionals, community leaders and spokespersons, and non-governmental organizations, believed that one priority was active participation of northern communities in planning and setting priorities for public health research. As was stated in the conference's final report: "Meaningful community involvement is necessary in the identification of health priorities and in the planning and implementation of health programs." One conference participant amplified this point by stating that it was fundamental that Northerners play a leading role at all stages of the research:

> *The involvement of communities is important to ensure that the right health priorities are defined and selected. The effectiveness of policies and programs depends upon the support and participation of the community. Society as a whole must also make sure that the best people and resources are available to reach health goals. Decision-makers and planners in all fields must be aware of how their activities affect the health of the people.*[6]

[6] "Health Research North of 60° - Final Report," comment by T. Pollitt, June 1989, p. 9.

Other guiding principles for selecting eligible research projects under the Initiative are summarized by the following:

1. *The recognition of traditional health practices: Improvements to the health system should include the identification of traditional aboriginal health practices and resources in the Northwest Territories and the incorporation of these in a comprehensive health system.*
2. *Improving system effectiveness: Improving the effectiveness of the health care system will require new approaches to the way policies, programs and human resources are applied.*
3. *The recognition of the interrelationship of health factors: A better understanding is needed of the interrelationship of factors affecting health in the Northwest Territories.*
4. *The identification and reinforcement of traditional values and practices: New approaches are needed to identify and reinforce traditional values, customs and institutions which have a positive influence on community and individual self-esteem and well-being. Those values, customs and institutions must be adapted to modern-day needs.*
5. *The innovation of communication and information to meet health needs: New approaches to communication and education on health issues are required in order to meet the health needs of Northwest Territories communities.*
6. *The impact of the socio-economic environment on health: A better understanding is needed of the physical, economic, cultural and spiritual environment as it affects the health of Northerners, particularly the ways rapid social, economic and cultural change affect physical and mental health.*
7. *Environmental contaminants: Complete baseline information is needed on the distribution, types and current levels of contaminants present throughout the Northwest Territories. Monitoring and evaluation of changes in the presence and level of those contaminants is also needed.*
8. *New approaches to physical health: New approaches are required to address issues and concerns relating to the physical health of individuals and communities, including causes, information needs, interventions and costs.*
9. *New approaches to mental health: New approaches are required to address the major issues and concerns relating to the mental and emotional health of individuals and communities, including cause, information needs, response options and costs.*[1]

Participants at the 1989 conference in Yellowknife also endorsed the following as criteria for evaluating research proposals and findings:

1. *Research focus and design should reflect community needs and follow from community consultation. Where possible, the community should be involved in the research program and be provided with the research results and their meaning.*

[7] Ibid, at pp. 19-23.

2. *Research should be evaluative and intervention-oriented; it should help Northerners to see how well they are doing and what they should consider changing.*
3. *Research focus and design should aim for positive solutions to health concerns, rather than being limited to the description of those concerns.*[8]

The report now describes the current scheme under which funding for public health research under the Initiative is determined. First, interested applicants are invited to submit their proposals for research to the GNWT, Department of Health. At this stage, the application for funding takes the form of a summary of the proposed research plan, referred to as a "letter of intent". The letter of intent allows the review panel to assess whether the proposed project is consistent with the aims of the Initiative. A letter of intent contains an explanation of the nature, scope and potential benefits of the proposed research . It should also explain how the research is designed to produce results with practical significance for community health in the North. (A copy of a rating form used at this stage of the review process is found in the Appendix I of the report).

Upon receipt of the letter of intent, a Department of Health review committee meets to discuss the merits of the proposal. Following this internal review by the department, a review panel, convening in Yellowknife or elsewhere in the North, is notified and considers the proposal. Review panels make their decisions regarding applications by consensus and independent from the government. Membership on the review panel includes representatives from the GNWT, Department of Health, the Department of Health of the Government of the Yukon, University Research Network, the Extramural Research Programs Directorate of NHRDP, four community representatives of the Yukon and Northwest Territories (of the latter, there are representatives from both the Eastern and Western Arctic), the Science Institute of the Northwest Territories and two scientific advisors. A seat has also been proposed for a representative of the Yukon Science Institute.

The "North of 60° Workshop Final Report" sets out the priorities for public health research in the Northwest Territories. The priorities identified in the "North of 60°" workshop in 1989 are not formal criteria, but are rather guidelines or guiding principles. On their basis, eligibility for funding has been decided by the review panels. Health promotion activities, funding for staff positions, or treatment programs, are not eligible under the "North of 60°" Initiative. Proposals submitted for consideration must relate to public health research, preferably with some practical connection to health promotion in a particular northern community.

When the review panel arrives at a consensus decision, the panel makes a recommendation that the project either be supported, rejected, or conditionally accepted. In the event that the panel recommends that the proposal be conditionally accepted, it suggests ways in which the proposal may be strengthened. In such a case, the applicant has the option of revising the proposal accordingly and of resubmitting it for the consideration of the panel.

[8] Ibid., p. 17.

Because the NHRDP will not fund a project where a provincial or territorial government has no confidence in a proposal, the Departments of Health for the Northwest Territories and the Yukon effectively have a veto in the decisions of the review panel.

The second stage of the application process consists of "formulation funding." If the proposal for research is given initial approval, the applicant submits a more detailed plan and budget for the review of the national review panel of the NHRDP. The national review panel may sit in Ottawa or in the Northwest or Yukon Territories. (A copy of a rating form used at this stage of the review process is found in Appendix II). The practice has been for the national review panel to endorse recommendations made by the review panel and to give these recommendations "fast-track" consideration. As is stated in one assessment of the Initiative:

> *...the amount of time and support provided to the applicants by program officers, administrative staff, review panel members, and designated external consultants is considerably greater than is the usual case for applications to NHRDP.*[9]

Assuming that the proposal is given approval at the second stage, the application proceeds to a third and final stage of review called "full funding" where the fully developed proposal is reviewed. The NHRDP then notifies the applicant of the panel's final decision. The time period between the initial submission of the application and the rendering of the final decision varies from between six months and two and a half years (See Appendix III).

Employees of the federal government and of federal Crown corporations are ineligible for funding under the Initiative. Personnel of the regional health boards are eligible to apply for funding, but GNWT Department of Health headquarters staff are excluded. The reason for this exclusion is to prevent possible conflicts of interest. Other employees of the GNWT are eligible provided that their subject of research is not one that is already specifically administered by the GNWT.

The "North of 60°" Initiative is not the only source for funding of health-related research in the North. Research proposals involving questions of health in the northern communities may also be eligible for financial support under the regular NHRDP competition. The terms of reference for such applications made in the regular stream of the NHRDP do not have to meet the stringent "North of 60°" Initiative priorities for funding. For example, applicants from universities in the provinces seeking to do research in the North - in capacities other than as a collaborator with a northern community, with a Northerner as principal investigator if possible - may apply under the regular stream of the NHRDP.

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9 See Gary Pekeles, M.D., "Interim Evaluation of 'North of 60' Special Initiative of National Health Research and Development Program - Final Report," October 1993 (Internal document, Department of Health), at p.11.

EVALUATIONS: THE "NORTH OF 60°" INITIATIVE:

In October 1992, the federal Auditor General submitted a comprehensive audit of the Department of Health to the Legislative Assembly. Included within the departmental audit was an examination of the management and efficiency of the "North of 60°" Initiative. The Auditor General recommended that: " Management should develop a focused research policy and negotiate its implementation with both NHRDP and the Science Institute in conjunction with the [regional health] boards to ensure participation, relevance to regional needs, and action on results."[10]

The Auditor General's report offers the strongest criticism about the delivery of the "North of 60°" Initiative. In particular, the Auditor General found that the Initiative lacked practical significance and stated that it was of a mainly scientific, academic interest. The audit stated that the research initiative lacked a focus on long-range health care objectives. It was suggested that the Initiative required improved coordination between the federal government and the GNWT as well as an improvement in the way that Initiative projects were monitored. The department, interested in improving the efficiency and utility of the Initiative, endorses this recommendation.

In March 1993, SCOPA tabled a report in the Legislative Assembly concerning the Auditor General's comprehensive audit of the Department of Health. It is in that report that the committee set out the terms of reference for the Department of Health's evaluation.

For the past year, the "North of 60°" Initiative has undergone an evaluation conducted by Health Canada and the NHRDP. It was in 1992, some four years after its inception, that the Initiative's sponsors, in accordance with the Treasury Department of Canada's directive on the need for a periodic review of all federal programs, agreed on a collaborative review and evaluation of the "North of 60°" Initiative. This evaluation was led by Health Canada. It was recommended that the evaluation be undertaken in two distinct phases. The first, in the form of a "pre-evaluation" report, would be completed by the GNWT Department of Health and would examine the administration, promotion, structure and maintenance of the Initiative. In the spring of 1993, the GNWT Department of Health completed this "pre-evaluation report," and recommended the continuation of a modified "North of 60°" Initiative, with a continued allocation of supporting funds from NHRDP. A more detailed reference to the Department of Health's "pre-evaluation report" is found below on page 18.

[10] Auditor General of Canada, "Comprehensive Audit of the Department of Health. A Report to the Legislative Assembly of the Northwest Territories." October, 1992, at pp. 29-30.

The second phase of the evaluation was the responsibility of the federal government and was contracted to an independent consultant. The terms of reference for this second phase of the evaluation were to examine the larger impact of the Initiative, the participation of individuals and northern communities and the proposal process, and to include a general evaluation of the Initiative's success or failure. It was agreed that the evaluator would prepare both an interim and a final report.

In his final report, entitled "Interim Evaluation of 'North of 60°' Special Initiative of National Health Research and Development Program,"[11] the consultant evaluated the overall success of the Initiative and considers how it could more effectively fulfil its objectives. In the preparation of his report, the evaluator interviewed people who were involved in the Initiative. In the judgement of the evaluator, in view of the quality and type of research performed, the Initiative has indeed been promising so far. However, that does not mean that the Initiative is without problems. Some of the main conclusions drawn by the evaluator's report, which should be included in any future planning of the "North of 60°" Initiative, are summarized as follows:

First, the efficiency of the "North of 60°" Initiative is impaired by the fact that it is administered from Ottawa, Yellowknife, and Whitehorse. The fact that the Initiative is jointly sponsored and controlled by the two levels of government leads in many instances to administrative confusion and frustration of purpose. The application process potential is convoluted and appears complicated. The evaluator reports:

> *The time frame, from conception of an idea to completion of a project in health research is long at the best of times. Professional researchers learn the cadence. In the case of this Initiative, the two-city-based administration and several tier vetting of projects prolonged this process at times and blurred lines of communication for would-be investigators. Even professional researchers expressed frustration at times with the process. For first-time applicants for research grants ... the time frame and requirements for a proposal seemed particularly onerous....*[12]

Second, the meaning of "community-based research," which is intended to serve as the hallmark for the "North of 60°" Initiative, is ambiguous and subject to various interpretations. As a question of fundamental interpretation, the use and meaning of the term "community-based research" has presented the Initiative with some difficulties in terms of: (1) who is ideally suited to carry out northern-based health research and (2) how the involvement of the community will be achieved. In this respect, the evaluator's report points out that research into public health issues can be basically seen as lying along a continuum. At one extreme end is "community-driven research," which is conceived at the local community level and fulfilled at that level. On the other end of the spectrum is the research that, though undoubtedly fulfilling some of the requirements and

[11] Gary Pekeles, M.D., "Interim Evaluation of 'North of 60' Special Initiative of National Health Research and Development Program - Final Report," October 1993.

[12] Ibid, p.14

interests of the local community, is primarily inspired by and in the interest of the research priorities of academics from the universities to the south. In order to improve the Initiative, there is a need to reconcile the interests of researchers and northern communities, which may not in all cases coincide. Despite the clear need for encouraging local community involvement, the evaluator's report recognizes that academic researchers have a valuable role to play in health research in the North. The evaluator reports:

> *...northern health research priorities are better served by actively engaging competent, experienced researchers ... Academic researchers do indeed have motivations and perspectives separate from those of northern communities, but to the extent that such motivation can be channelled into areas of inquiry that are locally defined priorities with full community participation, those communities will be better served.*[12]

Third, the "North of 60°" Initiative was intended to provide funding for "health research," a term which can be broadly interpreted and understood. The evaluator found that many of the proposals submitted for funding dealt with important areas of health promotion; in many instances, people were looking for funding "to provide needed health or social services" in the Northwest Territories. However, evidently because these types of proposals did not address "health research," they did not receive approval for funding. Regrettably, this caused considerable unhappiness and frustration for some of the individuals and communities involved. According to the evaluator's report:

> *Research in health should be focused to a large extent on areas that are likely to have a direct impact on improving the health of northern peoples. Still, with those concerns agreed upon, there is still a fairly broad spectrum of kinds of research that may be conducted to address them.*[14]

According to the evaluator, projects for health promotion *per se* are in all likelihood excluded from eligibility for financing by NHRDP: "To go beyond research would probably exclude direct involvement of the NHRDP."[15] However, this does not necessarily imply that Health Canada would be unreceptive to otherwise agreeing to finance community-based health promotion projects, outside the purview of the NHRDP.

The evaluator's final report also assesses the overall success rate of applications made under the Initiative. Regarding the first stage of the review process, it was determined that from 94 inquiries about the Initiative, 62 were rejected either absolutely or conditionally. Eight of the total of 94 initial inquiries received encouragement from Initiative staff; however, further follow-up of the applications did not occur. But, the authors of 24 of these 94 "letters of intent" received a favourable response from the Initiative's administration, and applications were

[13] Ibid, p.19.

[14] Ibid, p.12.

[15] Ibid, p.16.

subsequently received for formulation or full funding. Of these 24 "letters of intent" submitted, 16 received offers of funding; and of these, 9 are complete or, financially at least, on track to completion. Three more remain possibilities, and 12 will not proceed any further. This success rate of 38 to 50 percent compares favourably to the regular competition within NHRDP."[16]

16 Ibid, at p. 9.

GNWT HEALTH EVALUATION: THE "NORTH OF 60° INITIATIVE

Drawing, from the previous reviews that have been made, and in particular upon the Department of Health's own pre-evaluation report that was prepared under the terms of the NHRDP review of the Initiative,[17] this section of the report provides a brief evaluation of the "North of 60° Initiative by examining the question of whether the Initiative has fulfilled its basic objectives as identified at the Yellowknife Workshop in the summer of 1989.

Under the auspices of the Initiative, a variety of research projects on matters of interest to public health in the Northwest Territories have been undertaken.[18] The area of health research funded under the Initiative so far ranges from the delivery of health programs and services in the North, nutrition, environmental contaminants, health promotion and educational issues, pregnancy and childbirth, traditional healing, and research on specific diseases and immunization. As noted above, the priorities for research identified at the Yellowknife Workshop in 1989 emphasize: community involvement, traditional health, system effectiveness, interrelationship of health factors, values and practices, communication of information, socio-economic environment, environmental contaminants, physical and mental health.

Despite concerns about the extent of community involvement and whether some of the research has demonstrated a practical application to health promotion, the Initiative's objectives, as identified at the Health Research "North of 60° Workshop in 1989, have been largely fulfilled. With respect to many of the criteria for funding, it is premature to make a useful assessment. For example, because of the nature of science itself, health research may at the time seem academic and abstract, but in the future yield highly practical results in the field of health promotion. This proposition is no less true for the "North of 60° Initiative".

Therefore, the Department of Health believes that, measured by the standards of the research priorities identified at Yellowknife in 1989, research projects funded by the "North of 60° Initiative" have generally been a success. A table showing federal expenditures on the Initiative is found in Appendix IV to the report.

As noted, concerns have been expressed about the length and complexity of the application process. Evidently, the contributing problem with the review process is the fact that the initiative is administered from two distant locations - from the North and from Ottawa. This poses inevitable time delays.

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17 "Pre-evaluation report - North of 60° Initiative", Department of Health, GNWT, an internal document (hereinafter "pre-evaluation report").

18 For example, between April 1, 1991 and May 31, 1992 final reports on the following research projects involving health issues in the Northwest Territories were received by the NHRDP: Elaine Berthelet, Department of Health, GNWT, "AIDS prevention in the North - Demonstration and Evaluation of Culturally Adapted, Community-oriented Prevention." John D. O'Neil, M.D., University of Manitoba, "The Impact of Obstetric Evacuation Policy on Inuit Women and their families in the Keewatin Region, Northwest Territories." R.J. Shephard, M.D., GNWT, "The Effects of 20 years of Acculturation on the Health and Fitness of an Inuit Community".

In its own pre-evaluation report, the Department of Health found that:

> *On average it takes two years to go from the letter of intent, through formulation funding and then to full funding. In comparison with the time that the Initiative takes to process applications with time frames reported in Evidence of Impact and Relevance: NHRDP Research at the Community Level, June, 1991 (Curry Adams & Associates of Ottawa), it was found that the North of 60° Initiative is well within, if not less than, the national NHRDP time allocated for proposal processing.*[19]

The Department of Health has found that the level of sophistication required in the preparation of letters of intent may unfairly impose a disadvantage on a community group or on untrained, inexperienced researchers. If the "North of 60°" Initiative is truly going to benefit Northerners, it should be more accessible in terms of the comprehensibility of its application procedures.

Among the findings of the pre-evaluation report, problems involving access to funding by unprofessional researchers was identified in the application process. In particular, there was a concern expressed about the high standards imposed at the letter of intent stage. As is stated in the "pre-evaluation report":

> *On the one hand, the review panel needs certain information in order to make an informed recommendation on the proposal. On the other hand, it is at this stage that projects are being abandoned because the level of sophistication needed for a letter of intent is so high. It is not likely that a community group or an untrained researcher would be able to comply with these requirements ...*[20]

In addition, there was a concern raised in the pre-evaluation report that local communities were not sufficiently involved, in a meaningful way, with the health research projects which they ostensibly sponsored. It was observed that the term "community-based research" has come to be regarded as research carried out in the community. However, "in the best of all possible worlds," and according to the intent of the Initiative as defined in the Yellowknife workshop of 1989, "it would mean research carried out by a community, in a community, for a community."[21]

It would appear that the Northerners are, in fact, participating in community health and health services delivery in the NWT under the Initiative. The information analyzed by the Department of Health in its pre-evaluation report shows that promotion of the Initiative in the North is succeeding. The finding of the Department of Health is that of the 220 applications and inquiries received from addresses within Canada, "135 (63%) originated

[19] *Ibid.*, p. 24.

[20] *Ibid.*, p. 22.

[21] *Ibid.*, p. 25.

in the NWT. Another 22 (10.2%) originated in the Yukon. The rest, 59 (26.8%), were distributed among the provinces, with the bulk of them being from Ontario, Alberta, Quebec and Manitoba." About 4 inquiries (about 2.8% of all inquiries received) were from the United States or unknown addresses.

Furthermore, it was determined that "in all, the northern residents who applied for funding seemed to have a better chance at receiving funds." Indeed, "the successful applicant is more likely to be a northern resident, with a strong community organization link."[22]

It was also found that "applicants with local (NWT or Yukon) sponsors gained approval significantly more times than applicants with southern sponsors." The Department of Health "pre-evaluation report" also analyses the available data on the basis of the type of agency sponsoring research projects. The sponsorship of individual applications varied greatly; "the largest portion of applicants were independent or had no sponsor (38.5%), but non-governmental organizations [such as agencies, bands, corporations, etc.] (20.2%), universities and colleges (16.5%) and health facilities (11.5%) were also frequent sponsors."[23]

Northerners often feel over-studied and the Initiative needs to become more responsive to the needs of the communities which are the subject of health-related research. This is a concern that might be alleviated by ensuring that northern communities become genuinely involved in the research. This means that steps should be taken to encourage the local communities to take control of research proposals and direct them in accordance with their own interests.

Given the various evaluations that have been made, it can be concluded that while the Initiative has provided financial support for a variety of useful and interesting research, it has not yet realized its full potential. Though the fundamental intent and purpose of the Initiative has never been disputed, some difficulties have been encountered in its operation because of differences of perspective on the meaning of the Initiative's fundamental priorities. It should also be noted that some of the Initiative's difficulties can probably be attributed to the simple fact that the Initiative is still relatively young. In its pre-evaluation report, the Department of Health determined that it may be too early to assess the overall impact of the Initiative, stating:

[22] *Ibid.*, pp. 28-30.

[23] *Ibid.*

It is recognized at this point of the Initiative that impacts are not easily assessed; not enough time has passed to gauge full implications. However, some short-term effects are evident.

- *Two and a half million dollars has been infused into the northern economy as a result of funding. These are funds which may not have been available through other sources if not made available through the NHRDP.*

- *There is a certain amount of pride generated from the successful application of a community-based research project. For example, the Pauktuutit Inuit Women's Association has received press coverage of their successful proposal, and they have expressed their pleasure with their project and funding on CBC Radio.*

- *The Health Needs Study completed by the University of Manitoba for the Keewatin Regional Health Board will have direct impact on the service delivery at this regional level. Strategic planning based on the health study has recently begun at the health board.*[24]

The "North of 60°" Initiative would appear to be a highly worthwhile and useful endeavour. It is a uniquely designed and provides Northerners with special opportunities to gain access to funding for research into health-related concerns affecting their communities. Nevertheless, it should be given a fresh impetus according to a set of refocused policies and guidelines that reflect its original intent and purpose. Though the initiative is not flawed in any fundamental respect, it could benefit from a rejuvenation of its underlying principles and a reaffirmation of its basic mission; clearly there is a need to reemphasize the root purposes and priorities of the initiative as they were articulated at the Yellowknife Workshop of 1989.

[24] *Ibid.*, pp. 31-32.

RECOMMENDATIONS FOR FUTURE DIRECTIONS:

In light of the Initiative's history to date and of the various concerns that have been raised about whether the "North of 60°" Initiative is efficiently delivered, what is required is a conceptual basis upon which discussions for the Initiative's improvement may take place. In the words of the Auditor General, the goal should be the development of a "focused health research policy to ensure participation, relevance to regional needs, and action on the results of these studies."[25] In general, there would appear to be a need to revitalize the Initiative according to a clear statement of its original policy and objectives. If Health Canada is to continue to fund the North of 60° Initiative, basic policy parameters for the design and approval of research studies will need to be developed and implemented. In particular, these will need to reemphasize the following facets of public health research in the "North of 60°" Initiative: relevance of research to stated priorities of the Initiative, adherence to ethical standards in the conduct of research, and consultation and active involvement with interested parties and the local communities. In other words, the research policy priorities and principles, as reflected in the "Health Research North of 60° Workshop Final Report" of 1989, should be central to the continuation of the project.

If the federal government is supportive of continuing the Initiative, it can be improved by:

1. **Defining "Community - Based Research"**

   There is a need for a clear operating definition of "community based research." Ideally, proposed research projects should be initiated at the community level and entail a significant and meaningful involvement of the community. Communities in the North should not end up as the passive objects of health research studies. Rather, northern communities should actively participate in the studies and exercise a proprietary interest over the results that are generated from the research. Community-based research should reflect a consensus of interests shared by the different peoples of the North. To take advantage of their expertise and knowledge of health issues at the local level, regional health and hospital boards should take a leading role in the identification of research priorities.

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[25] *Op cit.*, note 10.

2. Reemphasizing Health Promotion

Health promotion **in northern communities should be reemphasized as an essential priority for funding under the "North of 60°" Initiative. Research proposals that involve pure health science, and that are without immediate, practical application for the health of Northerners, should be insufficient for funding purposes.**

3. Streamlining the Review Process

If Health Canada decides to continue funding the Initiative, application and review processes will need to be addressed. The Health Research Advisory Committee (of SINT) now reviews licence applications for all health-related research that is conducted in the Northwest Territories. This task, performed in accordance with the *Scientists Act RSNWT*, includes assessments on whether or not the proposed research meets acceptable scientific and ethical standards. The committee reviews whether "the procedures of collecting data and disseminating results are adequate" and also whether community approval has been obtained. Furthermore, depending upon the type of research proposed, it may be necessary to obtain a medical research permit.[26]

It is proposed that similar Health Research Advisory Committees in the Northwest Territories and the Yukon be created to assume responsibility for conducting the initial screening of health research proposals.

Membership on the NWT committee could include representatives from the Science Institute, the GNWT Department of Health, the regional health and hospital boards, and aboriginal organizations in the Northwest Territories. Among its proposed functions, such a committee could contribute to the "North of 60°" Initiative in the following ways:

1. **review research applications for NHRDP funding, taking into account the review of ethical and culturally-appropriate conduct, as well as assisting the applicant in the development of a sound working relationship with the community in which the study is taking place;**
2. **identify regional and local priorities for health research;**
3. **develop ethical standards and culturally-appropriate procedures for health research; and**
4. **provide a means whereby Northerners can participate more effectively in the decision-making process of reviewing NHRDP-sponsored research.**

[26] See "Doing research in the NWT: A guide for researchers working in Canada's Northwest Territories" (Science Institute of the Northwest Territories, August 1993).

Review of proposals for research has historically occurred at two tiers - in Yellowknife and at the NHRDP in Ottawa - resulting in prolonged delays in the application process. By implementing a scheme whereby decisions about research proposals affecting residents of the NWT are made by NWT representatives, the application process would be more streamlined and effective. Furthermore, in decentralizing the application review process, there is increased likelihood that the underlining policy elements of the Initiative, such as northern community involvement, would be enhanced.

4. Adherence to Ethical Standards

There is a need to ensure that ethical standards are adhered to in the conduct of health research in the Northwest Territories, including the research done under the "North of 60°" Initiative. There are useful guidelines that can be adapted for use in the Initiative. For example, research under the Initiative could be made to comply with the type of guidelines that have been adopted by the Association of Canadian Universities for Northern Studies (ACUNS) and/or by the Royal Commission on Aboriginal Peoples (RCAP). One means of ensuring that ethical standards are applied to research is to utilize "research contracts" whereby the relationship between the community and the researcher is explicitly defined.

In keeping with this idea, the department proposes that research applications should include a statement from the affected population of the study, indicating that the research is acceptable and important to them. In other words, that the community that is the subject of the research is giving its *informed* consent to the research.[27]

5. More Effective Public Relations

If the Initiative receives additional funding from Health Canada, there will be a need for increased and more effective public relations concerning the intent and purpose of the Initiative. In particular, there is a need to educate the public on the precise nature of the Initiative's priorities for the funding of health-related research.

Though decision-making review panels operate at "arms-length" from the Department of Health and are thus independent of government involvement, there has been a perception that the GNWT Minister of Health controls or influences the choice of research programs for Initiative funding. This is a misperception that evidently requires correction through better or increased public education.

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[27] Recommendation 16(2) in the Standing Committee on Public Accounts Report, tabled in the Legislative Assembly on March 18, 1993, also relates to the concern for the ethical conduct of all health-related research in the Northwest Territories, including that done under the auspices of the "North of 60° Initiative." It recommends that the Department of Health propose policy parameters for, *inter alia*, ethical standards of health-related research studies. These are now under review.

6. Aboriginal and Northern Health Concerns

The Initiative urgently needs to address aboriginal and northern health concerns in a way that is practical and of immediate relevance. In this respect the department suggests that a mechanism should be established whereby key health issues in the Northwest Territories are identified and placed in order of priority. This process should be ongoing and dynamic to reflect the changes and developments in health-related concerns in the Northwest Territories. Moreover, it should include the voicing of concerns at the regional and local community levels.

CONCLUSION

The recommendations outlined in this report are intended as a frame of reference to address the Auditor General's basic suggestion - that policy on the subject of the "North of 60°" Initiative be focused upon ensuring community involvement, relevance to regional needs and the practical application of research results in order to assist in the promotion of the health of Northerners. The Department of Health believes that the "North of 60°" Initiative should proceed in the spirit of this recommendation.

NATIONAL HEALTH RESEARCH DEVELOPMENT PROGRAM
NORTH OF 60° INITIATIVE

RATING SCALE FOR: LETTERS OF INTENT

Proposal file number _____

Title of study: _____

Principal investigator: _____

Sponsoring agency: _____

Reviewed by: _____ Date: _____

Please rate each proposal according to the following criteria:

1. Research addresses genuine northern need /10
2. Research question(s) clearly outlined /10
3. Basic research design clearly outlined /10

	not acceptable				exceeds requirement
4. Necessary resources clearly outlined	1	2	3	4	5
5. Preliminary cost estimates realistic	1	2	3	4	5
6. Potential participants determined	1	2	3	4	5
7. Appropriate letters of support enclosed	1	2	3	4	5
8. Funding administration centre identified	1	2	3	4	5
9. Potential ethical problems adequately noted	1	2	3	4	5
10. Steps to formulation funding outlined	1	2	3	4	5

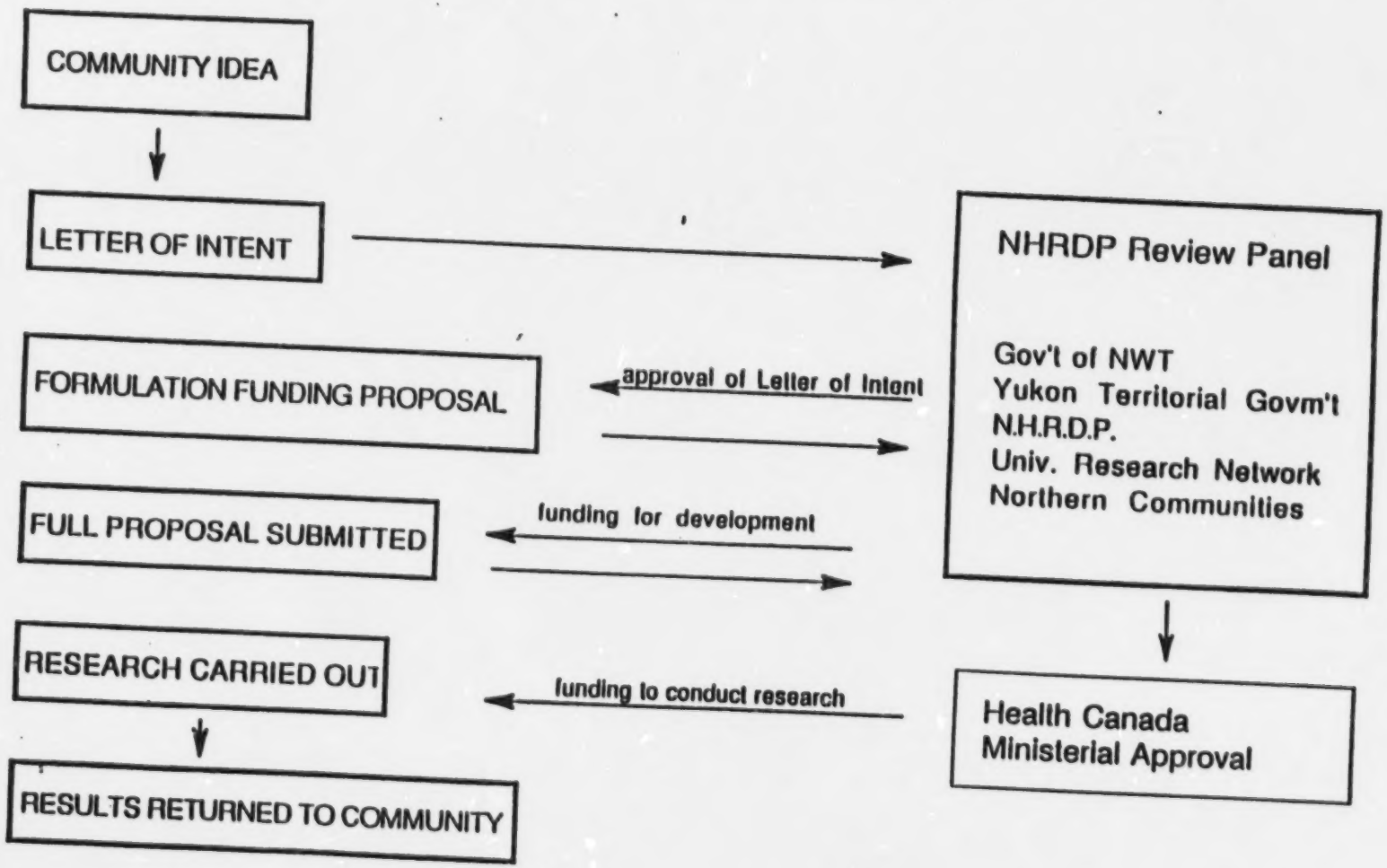
TOTAL SCORE: _____ /65

ACTION RECOMMENDED:

APPROVE FUNDING _____ DO NOT APPROVE FUNDING _____

Additional comments: _____

REVIEW PROCESS FOR PROPOSALS
SPECIAL NORTH OF 60 INITIATIVE



NATIONAL HEALTH RESEARCH DEVELOPMENT PROGRAM
NORTH OF 60° INITIATIVE

RATING SCALE FOR: FORMULATION FUNDING/ FULL FUNDING

Proposal file number _____

Title of study: _____

Principal investigator: _____

Sponsoring agency: _____

Type of funding requested: _____

Reviewed by: _____ Date: _____

Please rate each proposal according to the following criteria:

1. Research addresses genuine northern need i.e. Will this project provide valuable and useful information? /10

2. To what extent does the community support the project? /10

3. Basic research design clearly outlined /10

	Does not meet criteria				Meets criteria
4. Research question(s) clearly outlined	1	2	3	4	5
5. Research design feasible and appropriate	1	2	3	4	5
6. Necessary resources clearly outlined	1	2	3	4	5
7. Costs realistic	1	2	3	4	5
8. Ethical problems adequately addressed	1	2	3	4	5
9. Personnel and/or consultants appropriate	1	2	3	4	5

TOTAL SCORE: _____ /50

ACTION RECOMMENDED:

APPROVE FUNDING _____ DO NOT APPROVE FUNDING _____

Rationale: _____

APPENDIX IV

NATIONAL HEALTH RESEARCH DEVELOPMENT PROGRAM (NHRDP) NORTH OF 60° INITIATIVE	
Project Funding by Fiscal Year	
1989/90	645,768.30
1990/91	372,518.36
1991/92	404,872.00
1992/93	416,732.00
1993/94	149,496.00
1994/95	20,000.00
Total:	**$ 1,989,386.66**

APPENDIX C

Department of Health
Government of the Northwest Territories

Summary of Health Research Studies Conducted in the NWT by the Department of Health and other Agencies: 1988 - 1994

March 1994

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INTRODUCTION

At the request of the Legislative Assembly, the Auditor General conducted a comprehensive audit of the Department of Health during the latter part of 1991 and early 1992. The audit covered the period from the transfer of administrative responsibility for health services to the Government of the Northwest Territories (GNWT) in 1988 to early 1992. On November 17, 1992, the Auditor General's Comprehensive Audit of the Department of Health was tabled in the Legislative Assembly and was referred to the Standing Committee on Public Accounts (SCOPA) for review.

Based on public hearings held in Yellowknife, Rankin Inlet, and Inuvik, on written submissions, and on its own review of the Auditor General's Comprehensive Audit, SCOPA identified a number of concerns and made 28 recommendations aimed at improving the efficiency, effectiveness and economy of the Department of Health.

Recommendation 16 of the Standing Committee on Public Accounts report requested:

> *That the Department of Health prepare a document which:*
>
> 1. *Summarizes health research studies carried out within the department since 1988; and*
>
> 2. *Proposes policy parameters for the design, approval, ethical standards, consultation, local involvement and report distribution of future health research studies from the department.*

When the department presented its interim response to the SCOPA recommendations in September 1993, SCOPA requested that the department expand the scope of this recommendation to include other health-related research conducted in the Northwest Territories (NWT). Accordingly, this document lists health research conducted by the department from 1988 to 1994 and, to the degree that the department's investigations were successful, health research conducted by other agencies during the same time period.

The Department of Health is rarely directly involved in health research per se. Since 1988, the only two research projects undertaken by departmental staff included a meningitis vaccine clinical trial, and the Canadian Hospital Injury Research Prevention Project (CHIRPP). Both were licensed under the *Scientists Act*.

SUMMARY OF HEALTH RESEARCH STUDIES CONDUCTED IN THE NWT BY THE DEPARTMENT OF HEALTH AND OTHER AGENCIES: 1988-1994

1.0 DEPARTMENT OF HEALTH RESEARCH STUDIES, MONITORING AND SURVEILLANCE: 1988 - 1994

1.1 Kinloch, Dr. David. Inuit foods and diet: a preliminary assessment of benefits and risks.

The purpose of this preliminary assessment was to determine if the contamination of traditional Inuit foods with chemical residues from industrial and other activities around the world exceeded the "tolerable daily intake" of these chemicals for many Inuit when these foods were consumed. Implications are not known at this time.

Status: Complete.

1.2 Kinloch, Dr. David. Assessment of PCBs in Arctic foods and diet.

The purpose of this internal study was to assess the level of polychlorinated biphenyl (PCB) contamination in the food chain at Broughton Island. Intake of PCBs exceeds the "tolerable daily intake," with the blubbers of narwhal and ringed seals being the chief contributors.

Status: Complete.

1.5 Northwest Territories. Department of Health. Department of Fisheries and Oceans; Department of Indian and Northern Affairs; N'dilo and Detah Band Councils; Mackenzie Regional Health Service. Yellowknife Back Bay water quality review.

The purpose of this study is to address three research questions:

- Is the water in Back Bay, Yellowknife, safe to drink?
- Is the water safe to swim in?
- Are the fish safe to eat?

Samples of sediment, fish, and water are being analyzed, and dietary surveys are being conducted.

Status: Under way. Expected completion date: March 1994.

1.6 Northwest Territories. Department of Health, in association with community agencies and H.H. Williams Memorial Hospital Board. Community regional health needs assessment and review, Hay River and area.

The purposes of this research are:

- to develop options for the delivery of services;
- to identify gaps or overlaps in services;
- make recommendations to the H.H. Williams Memorial Hospital Board in consultation with the public in the region. A community profile document will be developed.

Status: Under way. Expected completion date: January 1994.

1.10 Northwest Territories. Department of Health, in collaboration with community agencies and Mackenzie Regional Health Service. Community regional health needs assessment and review, Fort Simpson and area.

The purpose of this assessment and review is to provide community and health information based on community consultation interviews. To complement this, the Fort Simpson Dene Council is preparing a proposal for culturally centred research.

Status: Under way. Expected completion date: January 1995.

1.11 Northwest Territories. Department of Health, in collaboration with the Kitikmeot Health Board. Community regional health needs assessment and review, Kitikmeot.

The purpose of this assessment and review is to begin the development of a regional health services plan. A solid base of community information will ensure that the needs of the region are met through health services and programs.

Status: Under way. Expected completion date: April 1994.

1.12 Northwest Territories. Department of Health. Community health centre workload of professional and non-professional staff.

The purpose of this 1990 study of community health centres in the NWT was to assess all workload activities of nursing and non-nursing staff in the community health centres. Analysis of the information has been used to initiate the development of some regional pilot projects, using alternate community health centre staffing mixes.

Status: Complete.

1.16 Northwest Territories. Department of Health. Unlinked anonymous surveillance for HIV.

The purpose of this surveillance was to identify cases of undetected HIV/AIDS. The department conducted anonymous HIV/AIDS testing on blood samples from the three major hospitals in the NWT. The tests revealed one case of undetected HIV/AIDS.

Status: Complete.

1.17 Northwest Territories. Department of Health, in collaboration with the Keewatin Regional Health Board. Rankin Inlet community birthing pilot project.

The purpose of this project is to determine whether low-risk mothers can deliver their babies in their home communities where there are limited backup resources.

The Financial Management Board, GNWT has approved funding for a two-year pilot project. The Keewatin Regional Health Board has requested formulation funding for an evaluation of the project from the National Health Research and Development Program (NHRDP), Health Canada.

Status: Under way. Expected completion date: November 1995.

1.18 Northwest Territories. Department of Health. NWT Injuries Research and Prevention Project.

The purposes of this project are:

- to continue to collect information on injuries sustained by children and adults in the Northwest Territories;
- to determine how, where and why injuries happen;
- to develop injury prevention and safety promotion programs for the public.

Status: Under way. Expected completion date: March 1994.

1.22 Northwest Territories. Department of Health, in collaboration with the regional health and hospital boards. Sponsored by the Medical Services Branch, Health Canada. NWT breast feeding study.

The purpose of this study is to examine breast feeding practices in the Northwest Territories.

All babies born in 1993 will be followed for one year of life. Each health centre will fill out an infant nutrition record for each baby at the ages of six months and one year. The information will be tabulated by Health Canada. The Department of Health will release a six-month preliminary report on infant feeding practices, and Health Canada will publish a report which will be used by the department to develop health promotion initiatives.

Status: Under way. Expected completion date: August 1995.

1.23 Northwest Territories. Department of Health, in collaboration with the Keewatin Regional Health Board. Community and regional health needs assessment and review, Keewatin Region.

The purpose of this assessment and review is to support the Keewatin Regional Health Board in planning process for development of a regional health plan for Rankin Inlet.

Status: Under way. Expected completion date: December 1994.

1.26 Northwest Territories. Department of Health. Food habits, nutrition and health of the Dene and Inuit: an annotated bibliography.

The purpose of this project was to develop an annotated bibliography for the GNWT Department of Health. The annotated references are grouped under the following headings:

- Acculturation;
- Anthropology;
- Environmental Contaminants;
- Health Status and Medical Assessment;
- Nutritional Assessment and Dietary Habits;
- Pregnancy, Lactation and Infancy.

Status: Complete. Unpublished paper.

2.4 Hall, Barbara, affiliated with the Department of Education. Health knowledge attitudes and behaviour survey.

The purposes of this survey are:

- to assess the present status of health-related knowledge, skills, attitudes and behaviours of children and youth in the NWT, with particular reference to the aboriginal population;
- to assess the effectiveness of the NWT school health program.

A questionnaire is being tested for use.

Status: Under way. Expected completion date: 1994.

2.5 Hunnisett, Stan. Suicide and alcohol in a Gwich'in community.

The purpose of this community-based project was to investigate the suicide problem in a Dene community in the Mackenzie Delta region and discover ways in which the citizens and institutions in the region could help reduce the high suicide rate.

Status: Terminated at the community's request.

2.6 Kuhnlein, Harriet. Dietary evaluation of food, nutrients and contaminants in Fort Good Hope and Colville Lake.

The purpose of this study was to determine toxaphene levels in, and nutritional value of, samples of fish, wildlife, and plants consumed by Mackenzie River community residents. Interviews were conducted to determine type and quantity of foods consumed by each individual and the seasonal variation in foods consumed.

Status: Complete.

2.10 Rawlyk, Roger. Identification of methods for empowerment of aboriginal communities.

The purpose of this study is to collect knowledge concerning the nature of tradition-based, positive, healthy northern aboriginal family dynamics. There is a need to strengthen this knowledge through consultation with the community, policy-makers, professionals and academics. The output would be a data base identifying traditional aboriginal notions about family values, attitudes, and roles.

Status: Formulation funding stage.

2.11 Ryan, Joan. Traditional medicine project.

The purpose of this study was to identify, photograph, collect and catalogue all roots, plants and animal parts used for healing and preventive medicine in the Dogrib area.

Status: Complete; awaiting final report.

2.12 Shirt, Eric and Roy Fabian. Cultural component treatment for native alcohol and drug problems.

The purpose of this project was to test the effectiveness of incorporating the client's cultural background into an alcohol and drug treatment program, enabling the client to develop a sense of belonging and of acceptance.

Status: Complete.

3.0 SCIENCE INSTITUTE OF THE NORTHWEST TERRITORIES HEALTH-RELATED RESEARCH LICENCES, 1993

3.1 Aspler, L.B. Geological mapping, Ducker and Watterson Lakes.

The purpose of this project is to determine the amount of contaminants as a part of the northern contaminants study. The field crew is collecting water, moss and lichens from the basin.

Status: Under way. Completion date unknown.

3.2 Barrie, L.A. Atmospheric Environment Service, Environment Canada. Organochlorines and polycyclic aromatic hydrocarbons in the arctic atmosphere.

The purpose of this study is to measure the occurrence of selected organochlorines and polycyclic aromatic hydrocarbon compounds in the arctic atmosphere for a period of two years, thereby providing insight into environmental transport, removal, transformation and surface exchange processes as well as compiling data for the development of realistic environmental pathways models.

Status: Under way. Expected completion date: 1993 or early 1994.

3.3 Biddleman, Terry. Toxaphène in the arctic: atmospheric delivery and transformation in the food chain.

The purpose of this study is to analyze toxaphene and other organic compounds in air and water samples taken in the arctic.

Status: Under way. Completion date unknown.

3.7 Corkal, J., affiliated with Stanton Yellowknife Hospital and the Inuvik Regional Health Board. The radiologic incidence of spondylolysis and spondylolysthesis in the Canadian Inuit.

The purposes of this study are:

- to determine the radiologic incidence of defects of the lumbar vertebrae in the Canadian Inuit;
- to compare incidence of such defects over time.

Confidentiality will be ensured with respect to identifiers on the radiographs.

Status: Under way. Expected completion date: December 1993.

3.8 Cota, Dr. Glen. Biogenic bromine production, arctic waters and ice algal physiology sea ice optics.

The purpose of this study is to identify biological sources of organohalogens and to quantify their rates of release. These are involved in ozone depletion in the lower atmosphere but have little impact on human health.

Status: Under way. Some results published. Expected completion date: December 1994.

3.9 Crawford, Lorie. Perspective on mental health and illness of selected Dogrib women.

The purpose of this study is to identify Dogrib perspectives on mental health and illness. This is part of Ms. Crawford's requirement for a Master's thesis.

Status: Under way. Expected completion date: after thesis is defended, spring 1994.

3.13 Egan, Christine. Coral Harbour region. Perceptions of health and food.

The purpose of this study was to continue work begun in 1988. The researcher interviewed individuals regarding frequency and severity of perceived health problems and the frequency with which health care was sought during the period of June to August 1990.

Status: Complete.

3.14 Fashelt, Dr. D. Isortoo River region. Lichens in glacier recession.

The purpose of the researcher is to observe conditions in the glacial recession zone on the NWT margin of the Barnes icecap.

Status: Complete.

3.15 Gerrard, Jon. Manitoba Institute of Cell Biology, University of Manitoba. Dietary fatty acids and gestational hypertension among the Inuit.

The purposes of this study were:

- to study the development of hypertension during pregnancy;
- to evaluate the incidence and any changes in hypertension during pregnancy;
- to study Inuit deliveries from various Keewatin communities in order to assess the relationship between diet and hypertension through a questionnaire coupled with analysis of plasma and umbilical cord vessel lipids.

Status: Complete.

3.19 Graham, Karen. The thinking styles of northern nurse practitioners.

The purpose of this study is to investigate the thinking styles of northern nurse practitioners using the Inquiry Mode Questionnaire of Harrison and Bramson. The Department of Health is being consulted on the project.

Status: Under way. Completion date unknown.

3.20 Gregor, D.J. National Water Research Institute, Environment Canada. The historical record of persistent organic pollutants and trace metals in glacial snow and ice.

The purposes of this study are:

- to quantify annual deposition and historical residue trends of trace organic contaminants (including a standard pesticide/PCB suite and toxaphene) deposited through long-range atmospheric transport in an arctic icecap;
- to quantify annual deposition and historical residue trends of trace metals deposited through long-range atmospheric transport in an arctic icecap;
- to investigate the temporal trend of polycyclic aromatic hydrocarbons (PAHs) and elemental carbon (EC) transported and deposited on an arctic ice cap through long-range atmospheric transport;
- to compare findings from Canadian research with comparable information from the caps within Russia.

Status: Under way. Expected completion date: 1996/97.

3.23 Heinke, G.W., Faculty of Applied Science and Engineering, University of Toronto. Phase II - hazardous wastes.

The purposes of this study were:

- to investigate the current disposal methods for hazardous wastes; to undertake waste quantity and composition study;
- to draw up a detailed plan for co-disposal of hazardous and municipal wastes in the regions;
- to prepare a preliminary design of a co-disposal facility.

Status: Complete.

3.24 Heinke, G.W., University of Toronto. Solid waste characterization study.

The purpose of this study was to develop information on the volume and/or weight generation of solid wastes (domestic, commercial, industrial, institutional and other) in selected NWT communities in order to provide input to the planning and design guidelines for waste disposal. This study was monitored through the Department of Municipal and Community Affairs; Department of Health was an outside consultant.

Status: Complete.

3.25 Hermanson, Mark. Sanikiluaq region. Types and levels of contaminants in fish.

The purpose of this study was to conduct "investigations of presence and concentration of chlorinated organic industrial compounds and pesticides in lake sediment and fish from lakes of the Belcher Islands."

Status: Complete.

3.29 Konarek, Joseph, affiliated with Laurentian University. Destitution, disease and death in the NWT during 1900-1960: a historical social study.

The purpose of this study is to document the living conditions in the NWT during the 50 years prior to the increased presence of the federal government in the Northwest Territories.

Status: Under way. Completion date unknown.

3.30 Kuhnlein, Harriet V. Department of Dietetics and Human Nutrition, McGill University. Food composition and dietary evaluation for nutrients and environmental contaminants in the Mackenzie Zone.

The purpose of this study was to gain additional data on: food samples, particularly for vitamin A analysis; individual body weights and heights for interpretation of dietary data on nutrients and toxins; residents' food use frequency for comparison to 1988 data; and perception of safety or risk of their traditional food resources.

Status: Complete.

3.31 Kuhnlein, Harriet V. Department of Dietetics and Human Nutrition, McGill University. Traditional food composition links to dietary patterns of indigenous peoples.

The purposes of this study were:

- to define food systems for items now available and consumed for chemical constituents;
- to determine energy and nutrient profiles in the traditional versus market components of diets;
- to determine differences in food use between elder and younger adults;
- to determine how food system components meet nutrition needs.

Status: Complete.

3.34 McWhinney, Deborah. Iqaluit. Prenatal allowance.

The purpose of this research was to determine the feasibility and applicability of a financial allowance given to all pregnant mothers prenatally. It was hoped that an incentive, either monetary or in the form of a nutritional supplement, would reduce the rate of both infant and maternal mortality.

Status: Incomplete; project cancelled.

3.35 Marcus, Allan. Cambridge Bay. Community health profiles.

The purpose of this project was to look at the condition of Inuit populations and how their health and well-being have changed since 1953, when the relocation of Inuit from Quebec to the high Arctic took place.

Status: Researcher in U.K. The department could not confirm the status of this research.

3.36 Moore, Jan Allison, affiliated with the University of Illinois. Delivery of audiologic service and prevalence of hearing loss in the Western Canadian Arctic.

The purpose of this study was to complete an age distribution analysis on data received from 3500 patients in the three regions located around Great Slave Lake and Southwest NWT. Most hearing-impaired persons were adults with sensorineural hearing loss. A large number of these losses are associated with prolonged exposure associated with hunting and mining.

Status: Complete.

3.40 O'Neil, John. University of Manitoba. Impact of devolution on health services in the Northwest Territories: the Baffin case study.

The purposes of this study were:

- to contribute to an understanding of the process of devolution and its impact upon the larger process of constitutional development in the North;
- to transfer information to Northerners on devolution and its implications;
- to examine these questions through a case study on the devolution of health services in the Baffin Region through interviews and questionnaires with selected residents, health care professionals and participants in the transfer negotiations.

Status: Complete.

3.41 O'Neil, J. Obstetric policy for the Keewatin Region: NWT results of childbirth experience survey.

The purpose of this study was to document the problems created for Inuit women by the obstetric policy which required women to leave their home communities to give birth in Manitoba.

Status: Completed and presented at Circumpolar Health 1990.

3.42 Orrbine, Elaine. Children's Hospital of Eastern Ontario. A collaborative prospective study of risk factors for the development of childhood haemolytic uraemic syndrome (HUS) in Canada.

The purposes of this study were:

- to evaluate the incidence and severity of childhood HUS in Canada;
- to establish an inception cohort of patients with HUS in whom long-term renal outcomes could be assessed.

Status: Under way. Expected completion date: May 1994.

3.47 Rode, Andris, affiliated with the Department of Physical Education, University of Toronto Health and Fitness. A comparative study of Canadian Inuit and Siberian Evenki.

The purposes of this study are:

- to continue the health and fitness study in Igloolik;
- to establish a cardiovascular risk profile for Inuit of the Igloolik area;
- to compare health and fitness levels between Igloolik Inuit and Siberian Evenki.

Status: Under way. Expected completion date: June 1994.

3.48 Romano, Tracy. Tuktoyaktuk region. Nervous and immune systems of beluga.

The purpose of this study is to help determine how contaminants affect the health of belugas. This research examined the nervous (i.e. brain) and immune systems of beluga by collecting tissues from harvested animals for laboratory analyses.

Status: Under way. The department could not determine the completion date.

3.49 Sampath, Hugh. Psychiatric morbidity in an Arctic urban community. Iqaluit, NWT, 1990.

The purpose of this study was to review records of all inpatients and outpatients who were seen at the Iqaluit Hospital during a five-year period prior to private practitioners' setting up practices in town.

Status: Under way. Completion date unknown.

3.53 Stabler, M. Inuvialuit settlement region. Beluga whale harvest.

The purpose of this program is to monitor the beluga harvest in the Inuvialuit settlement region. The beluga harvest monitoring program is an ongoing program conducted by the Fisheries Joint Management Secretariat.

Status: This program is conducted on an annual basis, and the results are published.

3.54 Szathmary, E.J. The impact of low carbohydrate consumption on glucose tolerance, insulin concentration and insulin response in Dogrib Indians (journal article).

The purpose of this research was to study the relationship of a low carbohydrate diet and glucose tolerance, insulin concentration and insulin response in Dogrib Indians. The World Health Organization recommends that individuals undergoing an oral glucose tolerance test (OGTT) consume a minimum of 150 gm of carbohydrate on each of three days preceding the OGTT.

Status: Complete.

3.55 Thomas, Patricia, affiliated with the Department of Biology, University of Saskatchewan. Study of polonium 210 and lead 210 in food chains, lichen-caribou-man and lichen-caribou-wolf, in Northern Saskatchewan and the Northwest Territories.

The purposes of this study were:

- to determine baseline concentrations of polonium 210 and lead 210 in samples of lichens, in caribou and wolf tissues and human placentae;
- to calculate transfer coefficients between trophic levels in the food chain;
- to establish dose estimates for caribou, wolf and people;
- to determine polonium and lead ratios.

Status: Complete.

3.59 Weis, Dr. Michael. Inuit diets and organic and metal contaminants in the food chain at Sanikiluaq.

The purpose of the research was to study organic and metal contaminants in Inuit diets and in the food chain at Sanikiluaq. This was accomplished through interviews and diet diaries. The patterns of consumption of country foods and commercially prepared foods were assessed in seasons throughout the year.

Status: Complete.

3.60 Winnicky, Kim. Yukon and NWT border. Petroleum contamination.

The purpose of this study was to identify oil spill sites and collect information on the vegetation, soil and amount of surface oil present.

Status: Under way. The department was unable to verify if the research is complete and published.

3.61 Yazdanmehr, Susan. Evaluation of school health curriculum.

The purpose of this study was to develop implementation strategies for a comprehensive school health curriculum in the NWT. The study was entitled, "Assessment of Comprehensive School Health in the NWT." A survey was conducted of teachers, education administrators, community health and social service personnel, selected personnel in the territorial departments of Education, Health and Social Services.

Status: Complete.

4.0 ADDITIONAL HEALTH-RELATED RESEARCH, BOOKS, PAPERS, AND JOURNAL ARTICLES EXTERNAL TO THE DEPARTMENT

4.1 Abbey, S. New perspectives on mental health problems in Inuit women (paper).

The purpose of this paper was to report on the psychiatric consultations with women from the Baffin Region over a three-year period to characterize the mental health needs of women.

Status: Complete.

4.2 Addison, R. F. Institute of Ocean Sciences, Fisheries and Oceans Canada. Long-term trends in organochlorine residues in Eastern and Western Arctic seal blubber.

The purpose of this study was to measure trends in levels of PCBs, the DDT-group and other organochlorines in Arctic seals from the early 1970s to the present.

Status: Under way. Expected completion date: 1996/97.

4.3 Ash, Gary R. (Primary researcher is Terry Clayton of RL&L Environmental Services). Funded by Echo Bay Mines and the Department of Fisheries and Oceans. Fish tissue metal analysis at the Lupin Gold Mine, Contwoyto Lake.

The purpose of this study was to determine whether there have been any major changes in metal concentrations in fish tissue since 1985. Samples of muscle and liver tissue were taken from lake trout collected from Contwoyto and Concession lakes in 1990. Chemical analyses of the fish tissue samples were conducted for selected metals at the CanTest Ltd. laboratory in Vancouver.

Status: Complete. Monitoring is ongoing.

4.7 Cappon, Paul. Community health and heath promotion in Baffin Island (paper).

The purpose of this paper was to report the findings of an earlier study on the health status of Baffin residents. The researcher concluded that the Baffin Region does not resemble the Canadian norms in population, geography or demographics. Community health initiatives should employ the use of Baffin's demographics to design health promotion activities.

Status: Complete.

4.8 Chan, J. Brucellosis in an Inuit child, probably related to caribou meat consumption.

The purpose of the project was to study a case of brucellosis in a nine-year-old Inuit boy from Taloyoak, NWT.

Status: Complete.

4.9 Johnson, Laura. Cambridge Bay. Impact of waste materials.

The purpose of this study is primarily to determine if the waste materials of the Cambridge Bay dumpsite have had an impact on the marine environment. Samples of sediment, water and different marine species such as fish, marine invertebrates (including sea urchins and clams) and the underwater dumpsite in Cambridge Bay are being assessed for contaminants such as heavy metals and PCBs.

Status: Under way. Date of completion depends on results.

4.13 Demmer, M. Inuit Tapirisat of Canada. Promoting responsible research in Inuit communities: privacy, consent and other legal and ethical issues relating to research.

The purpose of the report was to assist members of Inuit communities who have expressed concern about their lack of control over research conducted in their communities. A report was commissioned by the Inuit Tapirisat of Canada (ITC) which outlines relevant legal and ethical rules relating to research so that Inuit communities will better understand their rights when dealing with researchers. The report also suggests strategies for enhancing control over research in northern communities.

Status: Complete.

4.14 Dewailly, E. Laval University. Cord blood study - Nunavik.

The purposes of this study are:

- to assess the exposure of Northern neonates to selected organochlorines, heavy metals and radionuclides in at least two regions of arctic Canada;
- to compare the levels measured in different regions of arctic Canada and in comparison groups from Southern Canada and identify communities where additional research should be implemented;
- to evaluate temporal trends during a five-year program;
- to plan a course of action for public health, determined by blood contaminant concentrations in the subjects studied and by the known toxicological properties of the contaminants identified from the scientific literature.

Status: Under way. Program will continue into 1994.

4.17 Elkin, B. Northwest Territories. Department of Renewable Resources. Identification of baseline levels and spatial trends of organochlorine, heavy metal and radionuclide contaminants in caribou.

The purposes of this project are:

- to assess the exposure of free-ranging caribou in the Northwest Territories to organochlorine, heavy metal and radionuclide contaminants;
- to establish baseline levels of organochlorine, heavy metal and radionuclide contaminants in several caribou tissues;
- to determine spatial trends of these contaminants in caribou herds across the NWT;
- to identify specific contaminants or geographical locations that warrant further study in caribou;
- to provide baseline contaminant data that will serve as the basis for ongoing monitoring of temporal trends of specific contaminants in caribou.

Status: Under way. Expected completion date: fiscal year 1995/96.

4.20 Fortuine, Robert, M.D. Ed. *Arctic Medical Research - The Health of the Inuit of North America: A Bibliography from the Earliest Times through 1990.* Vol 52, Sup. 8. 1993 (book).

The purpose of this book was to present a listing of materials on the health of Inuit of North America.

Status: Complete.

4.21 Froese, Norbert. University of Manitoba funding. ATV accidents in Baker Lake and Eskimo Point.

The purpose of this study was to compare all-terrain vehicle and snowmobile accidents in Arviat with those in Baker Lake in order to determine the effectiveness of Baker Lake's 1979 by-laws on helmet use and the restriction on the number of passengers.

Status: The department could not locate the researcher to determine the status of this research.

4.22 Galan, D. Oral health status of a group of elderly Canadian Inuit (journal article).

The purpose of this article was to report on the oral health status of a group of elderly Canadian Inuit. Fifty-four Inuit elders in three communities in the Keewatin Region were examined for dental caries, periodontal disease, levels of edentulism, and the fit and quality of denture prostheses.

Status: Complete.

4.25 Goodbody, M.L. A study on the cost-effectiveness of audiology services in the Baffin Region (paper).

The purpose of this paper was to examine the cost-effectiveness of audiology services in the Baffin region. The hearing loss in the residents of the Baffin over the past twenty years has been well documented. The audiology unit assessed 1951 patients between 1984 and 1989.

Status: Complete.

4.26 Hargrave, B. Fisheries and Oceans Canada. Sources and sinks of organochlorines in the arctic marine food web.

The purposes of this study are:

- to quantify the long-range atmospheric and marine transport of organic contaminants and their incorporation into lower trophic level organisms of the marine food web in the Arctic Ocean;
- to provide baseline measurements of major semi-volatile organics (chlorinated pesticides, PCBs) in the Canadian high Arctic Ocean environment by sampling seawater (dissolved and particulate phases), plankton, benthos and fish;
- to assess the relative importance of atmospheric versus oceanic input of these contaminants to Arctic Ocean biota by seasonal measurements;
- to evaluate the bioconcentration of these compounds for comparison with data from more southern latitude ocean sites to assess input of organochlorines to food webs utilized as food by native populations.

Status: Under way. Expected completion date: March 1997.

4.30 Kaufert, J. The cultural and political context of informed consent for native Canadians.

The purpose of this study was to assess aboriginal Canadians' understanding of informed "consent." This was accomplished by videotaping participants while interviewing them. This external study was presented at Circumpolar Health Conference '90.

Status: Complete.

4.31 Kingsley, M. Modelling and evaluation of contaminant accumulation and effects in marine mammals.

The purposes of this study are:

- to develop contaminant accumulation models for arctic marine mammals;
- to understand contaminant pathways;
- to provide a framework for directing contaminant monitoring programs concerned with marine mammals of significance to the diet of native peoples.

Status: Under way. Expected completion date: March 1997.

4.32 Lockhart, W.L. Fisheries and Oceans Canada, Freshwater Institute. Central Arctic region. Biomarkers and stress effects in arctic marine mammals.

The purpose of this program was to define levels of biochemical stress responses in marine mammals as functions of contaminant concentrations measured in the same animals, and to define the influences of normal biological and habitat variables (e.g. sex, age, size, etc.) on the ranges of bioindicator values.

Status: Program cancelled. Some analysis has yet to be completed.

4.36 McMillian, A. Atmospheric Environment Service, Environment Canada. Canadian global emissions feasibility study - presentation of concept to Camraq.

The purpose of this presentation was to promote the concept of a Canadian global emissions inventory centre. This project is a "project of opportunity" brought forward for modest funding in the fall of 1992. It is part of a much larger effort.

Status: In the proposal stage.

4.37 Millar, W.J. Smoking prevalence in the Canadian Arctic (journal article).

The purpose of the study was to ascertain the prevalence of smoking in the Canadian Arctic. Two recent surveys of adults and of children in the Canadian Arctic obtained information on smoking behaviour. By age nineteen, 71% of Inuit youth were smokers compared to 63% of Dene/Metis youth and 43% of non-native youth.

Status: Complete.

4.38 Muir, D. Fisheries and Oceans Canada, Freshwater Institute. Spatial and temporal trends of organochlorines in arctic marine mammals.

The purposes of this study are:

- to determine temporal and spatial trends in PCBs and other organochlorines in arctic marine mammals on a circumpolar basis, with special emphasis on beluga whales, ringed seals and walrus;
- to provide data for use in surveys of dietary contamination by circumpolar countries and for use by the Arctic Monitoring and Assessment Program (AMAP).

Status: Under way. Expected completion date: March 1997.

4.41 Norstrom, R.J. Environment Canada. Assessment of arctic ecosystem stress: effects on polar bears.

The purposes of this study are:

- to determine identity concentrations and tissue distribution of potentially toxic sulphur-containing metabolites of halogenated aromatic compounds and their precursors in the polar bear and other arctic marine mammals;
- to determine presence or absence of specific pathologies associated with these contaminants;
- to determine cytochrome P450 monooxygenase enzyme activity levels in polar bear tissues and compare to western blot analysis of P450 proteins;
- to determine EROD- and porphyrin-inducing capability of fractionated tissue extracts in chick hepatocyte bioassay;
- determine organic/inorganic mercury ratios and heavy metal/metallothionein correlations in polar bear tissues;
- to determine the effect of season and adipose tissue size on contaminant levels in adipose tissue and milk and correlate levels of contaminants in females and cubs.

Status: Under way. Expected completion date: March 1995.

4.42 Norstrom, R. J. Environment Canada. Contaminant trends in polar bears.

The purposes of this study are:

- to analyze data on circumpolar geographical distribution of persistent organochlorine contaminants in the polar bear;
- to determine effects of age, sex, nutritional status, and sampling time on analysis of long-term trends;
- to determine structures of unidentified contaminants.

Status: Under way. Expected completion date: fiscal year 1997.

4.46 Peterson, J.S. Smokeless tobacco: a product for the new generation of tobacco users: dipping and chewing in the Northwest Territories (journal article).

The purpose of this study was to ascertain the acceptability of smokeless tobacco in the NWT. The use of smokeless tobacco appears to be a socially acceptable behaviour among certain ethnic and cultural groups in developing and developed countries.

Status: Complete.

4.47 Poole, K. Northwest Territories. Identification of baseline levels and reproductive effects of organochlorine and heavy metal contaminants in mink (mustela vison).

The purposes of this study are:

- to assess the exposure of wild mink to organochlorine and heavy metal contaminants in the western Northwest Territories;
- to determine baseline levels of organochlorine and heavy metal contaminants in several mink tissues;
- to identify spatial and temporal trends of these contaminants in mink along the Mackenzie, Slave and Liard drainage systems;
- to evaluate the potential biological effects of contaminants on mink reproduction;
- to determine the potential sources (via the prey base) of contaminants found in mink;
- to evaluate mink as a sensitive indicator species to monitor environmental contaminants and ecosystem health.

Status: Under way. Expected completion date: 1994/95.

4.51 Semkin, R. National Water Research Institute, Environment Canada. Processes and fluxes of contaminants in aquatic systems.

The purposes of this study were:

- to establish an experimental basin in the high arctic for the purpose of determining a detailed hydrologic and contaminant budget for the basin;
- to measure in an intensive manner within the basin the hydrology and the flux of organic contaminants and specific ions, especially during the winter accumulation and snowmelt seasons;
- to investigate and quantify the major processes affecting contaminant transformation, transport and fate in each basin in order to provide predictive capability for basin mass balances;
- to develop and calibrate contaminant transport models utilizing the results from this basin study and to compare the results among comparable basin studies.

Status: Complete.

4.52 Sheppard, R. Right-branch bundle block in circumpolar Inuit (journal article).

The purpose of this study was to determine the prevalence of right-branch bundle block (RBBB). Its prevalence has been examined in the Inuit residents of Igloolik over a twenty-year period. Original reports of a very high prevalence of RBBB probably reflected a selective testing of patients with chronic respiratory disease by visiting physicians.

Status: Complete.

4.53 Stephenson, Tasha. Shellfish contaminants monitoring. Iqaluit.

The purpose of this study was to measure the level of contaminants in Iqualuit clams. The main focus was bacterial contamination relative to sewage disposal in the bay.

Status: Complete and published as an informal report.

4.57 Wagemann, R. Fisheries and Oceans Canada, Freshwater Institute. Metallothioneine in Arctic marine mammals and fish.

The purposes of this study are:

- to determine the natural ranges of metallothioneine in tissues of ringed seals, harp seals, belugas and narwhal from the Canadian Arctic;
- to determine the sub-cellular distribution of metals in arctic marine mammals;
- to determine the influence of animal age on metallothioneine, and the relationship between metal concentration in tissues and metallothioneine.

Status: Under way. Expected completion date: March 1996.

4.58 Wein, E.E. Inuvialuit food use and food preferences in Aklavik, Northwest Territories (journal article).

The purpose of this article was to report on the annual frequency of use of 32 species of mammals, fish, birds and plants among 36 Inuvialuit households (43% of all) in Aklavik, NWT. The degree of preference for each of 34 traditional and 12 store-bought foods was examined.

Status: Complete.

4.59 Wein, E.E. Food health beliefs and preferences of northern native Canadians.

The purpose of this study was to examine food health beliefs and food preferences of northern native Canadians. Beliefs about the health value of 22 selected country and store-bought foods and preference for these foods were examined among 208 northern native Canadians (Indian and Metis) representing three generations (adolescents and young adults, middle adults, older adults).

Status: Complete.

4.63 Young, T.K. An epidemiological perspective of injuries in the Northwest Territories (paper).

The purpose of this paper was to review the epidemiology of injuries in the multi-ethnic population of the Northwest Territories based on mortality, hospital morbidity, and health survey data.

Status: Complete.

4.64 Young, T.K. Cardiovascular diseases in a Canadian Arctic population (journal article).

The purpose of this study was to review cardiovascular mortality, morbidity, and risk factors in the multi-ethnic population of the Northwest Territories, Canada.

Status: Complete.

4.65 Young, T.K. Geographical distribution of diabetes among the native population of Canada: a national survey (journal article).

The purpose of this article was to determine the prevalence of diagnosed diabetes in registered Indians and Inuit. The prevalence of diagnosed diabetes was determined for 76% of the registered Indian and Inuit population of Canada from case registers maintained by the federal agency responsible for Indian health services.

Status: Complete.

4.69 Canada. Indian and Northern Affairs Canada, Water Resources Division, in collaboration with Environment Canada, Fisheries and Oceans, and the Government of the Northwest Territories Department of Renewable Resources. Funded by the governments of Canada and Alberta, with the Northwest Territories as a cosigner. Northern river basins study.

The purpose of this four and a half year study is to examine the relationship between development and the Peace, Athabasca and Slave river basins in Alberta and the Northwest Territories.

This study as administered by a 20-person board made up of aboriginal leaders, government officials and community representatives, among others, with a science advisory committee. The study has a list of 16 guiding questions and is coordinated with the Slave River Environmental Quality Monitoring Program, avoiding duplication of effort.

Status: Under way. Expected completion date: 1997.

Department of Health
Government of the Northwest Territories

RESPONSE:

Comprehensive Audit of the Department of Health

February 1994

COMPREHENSIVE AUDIT OF THE DEPARTMENT OF HEALTH

Chapter & Page	Auditor General's Recommendations	Department of Health's Response	Implementation Status
Chapter 2 ORGANIZATIONAL STRUCTURE 2.5 pg 7 & 8	The Department should recognise the improvements made by Boards since 1988, and amend the control directive to reflect the needs of the present day.	The Department will review financial controls in consultation with the health Boards.	The need for budget control has been identified in the preliminary draft of the Memorandum of Understanding (MOU). The Department and Boards are presently working on funding issues, reporting and timetables, through a joint working group comprised of representatives from the Boards, Department of Health and the Financial Management Board Secretariat (FMBS). A new Health and Hospital Financial Management system has been approved and will be implemented by the fall of 1994.
Chapter 2 ORGANIZATIONAL STRUCTURE 2.6 pg 8 & 9	1. The partners in health care should clarify and resolve their respective roles, as well as the ambiguity between the THIS Act and the transfer policy. 2. The Minister, through the Department and the Boards, should work with all parties concerned to negotiate a health care model for the NWT.	1. The Department is prepared to participate in the clarification of roles and responsibilities. 2. Agreed.	Since the transfer agreement of 1988, the Department has been involved in several steps which will lead to the development of a comprehensive Memorandum of Understanding (MOU). In May 1993, a consultant group was hired to develop an MOU. A steering committee with representation from the NWT Health Care Association, Health Boards and the Department of Health are overseeing the MOU project. A preliminary document was provided to the stakeholders on February 2, 1994. Comments were requested for the next meeting between the Minister and Board Chairs which is scheduled for April 1994.
Chapter 2 ORGANIZATIONAL STRUCTURE 2.7 pg 9	The Department should review the effectiveness of Headquarters' organizational arrangements to determine if they are the most appropriate for serving the health care system.	The Department will review its headquarters' organization.	A functional review is currently under way. A final report will be provided to the Steering Committee (comprised of Secretary of the FMB, Deputy Minister and Assistant Deputy Minister of Health) by March 31, 1994.

Chapter & Page	Auditor General's Recommendations	Department of Health's Response	Implementation Status
Chapter 2 ORGANIZATIONAL STRUCTURE 2.8 pg 9 & 10	**As a joint exercise, the Department and the Boards should review all requirements for Board reporting and communication to make sure that all unnecessary barriers are removed, and that tradition does not get in the way of progress.**	In conjunction with the clarification of roles and responsibilities, reporting and communication requirements will be reviewed.	Communications between Boards and Headquarters will be clarified in the MOU project which is a joint process between the Health Boards, Department of Health and the NWT Health Care Association.
Chapter 2 ORGANIZATIONAL STRUCTURE 2.9 pg 10 & 11	**Once a health care model has been agreed upon by all the partners, the Department, in conjunction with the Boards, should ensure that the details are communicated effectively to all NWT residents.**	The Department does, and will, participate in the communication to the public on the health care system in place.	All the health Boards have commenced strategic planning initiatives that will help shape the NWT Health Care Model. Once a model is accepted, it will be the responsibility of the Department of Health and the health Boards to ensure the details are communicated effectively to NWT residents. The Boards and the Department do use TV and radio to supplement written materials in the area of health promotion and disease prevention. In addition, the Department has a 1-800 number that the public can use to make inquiries regarding health benefits.
Chapter 2 ORGANIZATIONAL STRUCTURE 2.10 pg 11	**The Government should take steps to form effective alliances at the working level among the Departments involved in the Healthy Public Policy. The arrangements should be structured in a practical way to avoid bureaucracy and produce cooperative results.**	The Department has had numerous working arrangements with other organizations both internal to and external to the Government of the Northwest Territories. It will continue to foster and expand these relations.	In January 1994, the Ministers of Health, Social Services and Education, Culture and Employment signed a Tri-Ministerial Agreement to improve the coordination of the planning and evaluation and the delivery of social policy programs and services by the involved Departments.

Chapter & Page	Auditor General's Recommendations	Department of Health's Response	Implementation Status
Chapter 2 ORGANIZATIONAL STRUCTURE 2.11 pg 11 & 12	1. The Government should arrange for an ongoing independent evaluation of the role of the Department and the Boards, against a set of key indicators developed jointly between the Department and the Boards. this will establish whether they are meeting their objectives for greater community service and control and if not, what alternative arrangement might better meet the needs of the public. The evaluators would identify training needs and any required changes in the delegation format.	1. The Department would support the evaluation of the role of the Departments and the Boards.	The roles and responsibilities of Boards and the Department are being addressed through the MOU project. A preliminary document was distributed to the stakeholders on February 2, 1994. The stakeholders are to report back to the Minister with their comments at a meeting scheduled for April 1994.
	2. The Department in consultation with the Boards, and with clear direction from the Legislative Assembly, should plan and budget for a comprehensive and ongoing training program for Board members, at a pace that is acceptable to each Board.	2. The Department, in conjunction with the Boards, will develop and seek approval for training programs for Board members.	The Department and the Health Boards support the orientation and ongoing training of all Board members. Currently, Boards a responsible for ensuring that their members receive the necessary orientation and training; the Department is responsible for monitoring implementation. Discussions are under way with the NWT Health Care Association and Health Boards for the development of a Trustee Orientation process. This will be further discussed at the April 1994 meeting between the Minister and Health Boards.

Chapter & Page	Auditor General's Recommendations	Department of Health's Response	Implementation Status
Chapter 3 PLANNING FOR THE FUTURE 3.1 pg 13 & 14	**The Government, in conjunction with the Department, should complete the review quickly and make sure that it considers all headquarters functions.**	The Department supports the conduct of a functional review.	The Functional Review consultants will present a final report to the steering committee (Secretary of the FMB, Deputy Minister & Assistant Deputy Minister of Health) by March 31, 1994.
Chapter 3 PLANNING FOR THE FUTURE 3.1 pg 13, 14 & 15	1. **The Department should negotiate a planning process with the Boards which sets priorities and allows both parties to participate effectively in planning.** 2. **The Department should develop a long-term plan in consultation with the Boards.**	1. In clarifying roles and responsibilities, the involvement of boards in the planning process will be included. 2. Agreed.	The quarterly meetings with the Minister will provide a forum for this planning process. Work in this area has commenced at the regional level. In addition a long term plan for financial reporting has been initiated, focusing on the process and timing of the Capital and O & M budgets.
Chapter 3 PLANNING FOR THE FUTURE 3.2 pg 15 & 16	**The Department should develop appropriate workload assessment tools and standards as quickly as possible, and apply them to the communities and all the Boards. The standards should consider all variables such as community infrastructure, support network, housing, population, gender, age, health problems, trends, diet, distance, etc.**	The Department will attempt to develop workload assessment tools or to utilize those developed elsewhere. Although the Department supports the recommendation, it should be noted that the development of appropriate assessment tools is difficult. Most provinces have not been able to develop appropriate workload measurement tools that fit the needs of their own jurisdictions.	A workload measurement tool utilizing standards for core programs in community health centres and public health centres was developed from the 1990 workload study. The core programs were reviewed and refined in July 1993. The workload measurement tool is available. As computers are introduced into the health centres the workload measurement system will be implemented to provide ongoing and measurable data. A regular review process for up-dating the tool has been established. National standards and an accreditation process for community health services is being developed by the Canadian Council on Health Facilities. The NWT has two members on the committee overseeing this work. Draft standards are expected to be ready for piloting in May 1994. Fort Resolution and Cambridge Bay have been selected as test sites.

Chapter & Page	Auditor General's Recommendations	Department of Health's Response	Implementation Status
Chapter 3 PLANNING FOR THE FUTURE 3.3 pg 16 & 17	In the forthcoming merger with Social Services, the Department of Health should examine its allocation of resources to see if they can be invested in areas more closely associated with the leading health issues, and monitor the results.	Both Health and Social Services are conscious of the need to appropriately allocate resources in any merger.	In considering consolidation of the Departments of Health and Social Services, efficient allocation of resources, program priorities and results measurements will be examined.
Chapter 3 PLANNING FOR THE FUTURE 3.4 pg 17	Once the parties have agreed on a health care model, the Department should develop appropriate policies to ensure that private clinics do not result in higher than acceptable payments for health care in accordance with the model.	The Department anticipates that the NWT Medical Association and consequently the private clinics will be participants in any new health care model. The Department, as part of its ongoing operations, will continue to monitor the provision of professional services.	Discussions are underway with the Medical Association and Boards to examine payment methods which encourage good medical practice and provide predictability of costs over time.
Chapter 4 MANAGING PEOPLE 4.2.1 pg 20	The Department, in pursuing an equitable distribution of training dollars, should address the issue of increasing aboriginal representation in those health vocations that are particularly concerned with delivering health care services to aboriginal people.	The Department is concerned about increasing aboriginal representation in health vocations and is pursuing the matter through Health Career Promotion Activities. Unfortunately, the matter is more complex than the simple distribution of training dollars, and it requires a concerted effort to increase the number of candidates adequately prepared by education or experience.	A Health Human Resource Plan for the NWT has been developed with input from Health Boards, aboriginal and professional groups and the Departments of Social Services and Education, Culture and Employment. Two Health Administration training positions have been established. The Western Arctic trainee position is filled and recruitment has commenced for an Eastern Arctic trainee. The Department of Health in conjunction with Arctic College has implemented an access year for a Registered Nurses Diploma program. The RN program is to be implemented in the fall of 1995. Over 80% of the students in the access year are of aboriginal decent.

Chapter & Page	Auditor General's Recommendations	Department of Health's Response	Implementation Status
Chapter 4 MANAGING PEOPLE 4.2.2 pg 20 & 21	**The Department in keeping with the philosophy of increasing aboriginal representation in the health care system, should ensure that education assistance funds are available for this purpose. Furthermore, the Department should ensure that eligible applicants are denied funding only if they are able to secure support from other sources, not because they may be eligible for other source funds.**	The Department of Education already provides extensive funding assistance to aboriginal students. In order to increase the number of students going into health courses, the Department is working with Education on health career education. With respect to the NWT bursary program, the Department has been following the recommendation. Eligible applicants were denied funding assistance only if they had received alternate funding.	The Department of Health Bursary Program provides $35,000 to assist students pursuing health careers. The Department of Health will, in consultation with the Department of Education, Culture and Employment, compile and publish a resource booklet on student financial assistance in 1994/95. A questionnaire is being developed by the Department of Health in consultation with the Department of Education, Culture and Employment to survey students concerning adequacy of financial assistance. The results of the survey will be available in 1994-95. Training dollars for Community Health Representatives CHRs) must now go through Pathways (Federal funding - CEIC). Each region has to apply to its local Pathways Board for buying of seats in the Training Program. Human Resource Mgmt. assists the Boards in this process.
Chapter 4 MANAGING PEOPLE 4.2.3 pg 21	**The Department should revitalize the affirmative action plan to recruit and retain aboriginal employees.**	The Department is aware of the need, and does encourage the recruitment and retention of aboriginal employees. The Department agrees that its plan needs updating. This is a key element of the Health Human Resource Plan. Consultation with other government entities is an ongoing part of the Human Resource Plan (HHRP).	A HHRP has been developed. The plan includes ongoing training of CHRs. At the time of transfer in 1988, less than 10 of the CHR positions were filled. The situation has vastly improved. A total of 46 CHRs have been trained since 1988, of which 45 were aboriginal. There were 7 graduates in October 1993. The next training program is scheduled for March 1994. Health career promotion activities, another key part of the Health Human Resource Plan have contributed to an increase in the number of NWT health career students. In 1993/94, there are 35 health career students receiving Student Financial Assistance, of which 8 are aboriginal. Two of these aboriginal students will graduate from nursing programs in 1994.

Chapter & Page	Auditor General's Recommendations	Department of Health's Response	Implementation Status
Chapter 4 MANAGING PEOPLE 4.2.2 pg 20 & 21	The Department in keeping with the philosophy of increasing aboriginal representation in the health care system, should ensure that education assistance funds are available for this purpose. Furthermore, the Department should ensure that eligible applicants are denied funding only if they are able to secure support from other sources, not because they may be eligible for other source funds.	The Department of Education already provides extensive funding assistance to aboriginal students. In order to increase the number of students going into health courses, the Department is working with Education on health career education. With respect to the NWT bursary program, the Department has been following the recommendation. Eligible applicants were denied funding assistance only if they had received alternate funding.	The Department of Health Bursary Program provides $35,000 to assist students pursuing health careers. The Department of Health will, in consultation with the Department of Education, Culture and Employment, compile and publish a resource booklet on student financial assistance in 1994/95. A questionnaire is being developed by the Department of Health in consultation with the Department of Education, Culture and Employment to survey students concerning adequacy of financial assistance. The results of the survey will be available in 1994-95. Training dollars for Community Health Representatives CHRs) must now go through Pathways (Federal funding - CEIC). Each region has to apply to its local Pathways Board for buying of seats in the Training Program. Human Resource Mgmt. assists the Boards in this process.
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Re previously said "April"

Chapter & Page	Auditor General's Recommendations	Department of Health's Response	Implementation Status
Chapter 4 MANAGING PEOPLE 4.3 pg 21 & 22	The Department should finalize the transfer of personnel positions to the boards as soon as possible, and develop appropriate coordination to ensure that Boards are not competing for the same potential employee.	The transfer of Personnel positions has been initiated. All Boards will have a similar recruitment and staffing capability. The recruitment of nurses is coordinated with the Boards.	The transfer of the Personnel functions to Health Boards is now complete.
Chapter 4 MANAGING PEOPLE 4.4 pg 22 & 23	The Department should consider the desirability of eliminating the recruitment function from the Human Resource Management (HRM) division and redirect recruitment dollars to the development of rating tools that will assist Boards in assessing the personal suitability of candidates to the North. Once hired, staff should be oriented to the requirements of the people and working conditions in the NWT through some form of mandatory in-house cross cultural awareness training.	Health - The functionality of the Human Resource Management (HRM) Division will be determined in an overall functional review, and in the clarification of roles and accountabilities. Personnel - All new employees of the GNWT will be required to take cross cultural awareness as a part of their orientation. Cross cultural awareness programs are available for existing employees through the Department of Education.	This recommendation is being addressed under the Functional Review of the Department of Health. A final report will be presented to the steering committee (Secretary of the FMB, the Deputy Minister and Assistant Deputy Minister of Health) by March 31, 1994. The Department and Health and Hospital Boards encourage staff participation in cross-cultural workshops presently offered by Arctic College and other agencies. All nurses completing the Advanced Nursing Skills In-service Program (ANSIP) receive a cross-cultural training module. Development of a cross-cultural program is under way and will be implemented for all newly hired headquarters staff in the fiscal year 1994/95. The program package will be distributed to the Boards, who are responsible for their own regional cross-cultural programs.

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Chapter 4 MANAGING PEOPLE 4.5 pg 23 & 24	1. The Department and the Boards should implement a Territorial wide performance management program and ensure that: a: all levels of supervision in the Boards/Headquarters are trained in monitoring and controlling employees performance; and b: they appraise the performance of all employees regularly. 2. All managers should be trained to assess the adequacy of performance plan objectives and to ensure that supervisors are not encouraging a paper exercise at the expense of the process.	The Department supports the completion of performance appraisals in collaboration with the Department of Personnel. The Department, in conjunction with the Boards, will review the performance review process.	Since October 1993, five performance appraisal workshops have been scheduled for Department staff. By the end of February 1994, 90% of all supervisory staff and (26) non-supervisory staff will have taken or be registered to take the workshop. The workshop, provided by FMBS Human Resources staff, is also available to the Boards.
Chapter 4 MANAGING PEOPLE 4.6.2 pg 25	The Department, in concert with the professional associations, should consider developing standard contracts for health care professionals, including performance criteria, to assess work practices, as well as conflict of interest definitions and remedies.	The Department will review Board contracts with physicians and develop standards where appropriate in conjunction with the Boards.	A contract package was developed for specialist services at Stanton Yellowknife Hospital. Expansion of this approach will be considered for other areas of medical practice.

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Chapter 4 MANAGING PEOPLE 4.7 pg 25	The Department in cooperation with the Boards, should develop a Territory wide system of exit interviews to assist Boards in assessing the adequacy of their HRM practices.	Department of Health, Headquarters started offering exit interviews to terminating staff in March 1993, following the Exit Interview policy instituted by the Department of Personnel. Exit Interviews for community health nurses commenced in January, 1993.	The Department of Health and the Health Boards commenced Exit Interviews as per the Department of Personnel policy in March 1993. Exit interviews are voluntary.
Chapter 4 MANAGING PEOPLE 4.8 pg 26	After completing the Human Resources Plan, the Department should develop, in consultation with the Boards, a training strategy that assesses staff potential and gaps, organizes training and development programs and distributes resources equitably between the competing demands.	Training will be reviewed in consultation with the Boards. Financial support for training and development programs will be explored.	The Health Human Resource Plan includes strategies to assist the Boards to assess the learning needs of their staff. The Department provides advice to the Boards on accessing funding sources for training and development such as Pathways, Education Leave and the Public Service Career Training Program (PSCTP).
Chapter 4 MANAGING PEOPLE 4.9 pg 27	The Department in cooperation with the Boards and Personnel, should assess and develop a strategy to have their human resource planning requirements met through GHRS or a comparable system.	Agreed.	All Hospital and Health Boards are now using GHRS except Stanton Yellowknife Hospital and H.H. Williams Hospital. Linkages between GHRS and the payroll systems used by the Boards and Department are being explored to reduce the work of inputting data and to increase timeliness.

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Chapter 5 INFORMATION MANAGEMENT 5.2 pg 29 & 30	**Management should develop a focused research policy and negotiate its implementation with both NHRDP and the Science Institute in conjunction with the Boards to ensure participation, relevance to regional needs, and action on results.**	Agreed.	The Department of Health is rarely directly involved in health research per se. Since 1988, the only two research projects undertaken by Departmental staff include a meningitis vaccine clinical trial, and the Canadian Hospital Injury Research Prevention Project (CHIRPP). Both were licensed under the NWT Science Institute Act. The great majority of health research undertaken in the NWT is carried out by universities, southern research scientists or persons contracted to regional health and hospital boards. Most of this research has been licensed by the Science Institute of the Northwest Territories (SINT), the variable input from the Department of Health Under the Science Institute of the Northwest Territories Act, and the NWT Scientists Act, SINT remains the body that reviews, approves and licenses health research from all applicant sources. Some researchers however, are believed to carry out their studies without licensing. Many do not seek out direct departmental consultation. Existing licensing considerations of SINT include consultation and communication standards. Ethical considerations, however, have tended to rely on standards set by southern academic ethical bodies - a somewhat outdated process that may need revision in light of current views that ethics need to be seen as reflecting local values. SINT is reported to be addressing this matter through a proposal to involve regional health and hospital boards in the license screening process.
Chapter 5 INFORMATION MANAGEMENT 5.2, pg 30	**If these data are important for decision making, management should complete the project promptly.**	The above information refers to two projects of which only one is active. The first project was completed in 1986-87. the second or active project will be completed when an Epidemiologist comes on staff later this fall.	The first project, Community Health Status Profiles within the Hydrocarbon Development Impact Zones (1986-87) was completed and published in 1987/88. Data was collected and a preliminary review of the information was completed for the second project, updating of community health status profiles within the Hydrocarbon Development Impact Zones. A final report was not prepared. The Department has rolled the data into the community profiles and regional planning initiatives are currently under way.

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Chapter 5 INFORMATION MANAGEMENT 5.3.1 pg 30 & 31	**The Department should take action to improve the flexibility and usefulness of the HIS system.**	Agreed.	A new northern information system will be developed in concert with the Informatics Strategy being implemented by the GNWT. The primary focus of the first phase of the project is to meet the needs of a decentralized Health Insurance Services function. In addition to improved claims processing, the benefits of this new northern health information system will include: a) key-strokes and screens for entering and viewing information that are similar to the ones used previously; b) improved accuracy in the data being captured; c) detailed and integrated tracking of health care services and related expenditures; d) new forecasting and statistical modules; e) the ability to review integrated NWT-wide health information regardless of its source. The new system will be developed in flexible modules to ensure its ability to meet changing requirements of the health system. The second phase, which includes integration of the Health Information System (HIS) and the Community Health Management Information Systems (CHMIS) will not be undertaken until Phase I has been successfully implemented.
Chapter 5 INFORMATION MANAGEMENT 5.3.2 pg 31	**The Department should ensure that claim forms are completed more accurately and more thoroughly and that compatible codes are utilized.**	In respect to reviewing overall system needs, consideration will be given to the accuracy of the data captured.	The Medical Travel form has been redesigned to allow for easier reporting from the field and to permit the collection of more complete information.

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Chapter 5 INFORMATION MANAGEMENT 5.3.3 pg 31 & 32	**The Department should improve its registration tracking process to ensure that as people leave the Territories their eligibility ceases.**	The Department will examine means of strengthening its registration system. Certain provinces are working on the problem now, but they are at a test stage only.	The Department contacted provincial/territorial jurisdictions to review measures undertaken to improve the accuracy of health care registration files. Possible options for improving the NWT system include linking with provincial tracking systems and conducting public awareness campaigns. In pursuing ineligible card holders, the cost of enforcement will also be taken into account.
Chapter 5 INFORMATION MANAGEMENT 5.3.4 pg 32	**The Department should update all agreements and ensure copies are on file.**	Agreed.	Copies of all reciprocal billing agreements for physician services are presently on file in the Health Insurance Services Division.
Chapter 5 INFORMATION MANAGEMENT 5.3.4 pg 32	**The Department should verify all billings and try to recover any payment where the Territories' liability is not clearly demonstrated.**	The Department will review its procedures to recover funds as appropriate according to interprovincial agreements and the federal/provincial working arrangement on portability of services.	When reciprocal billing was agreed to by federal/provincial/territorial Ministers of Health, it was acknowledged that to some degree there would be incorrect billings that provinces and territories would have to absorb. This was to ensure portability of benefits from one jurisdiction to another, as required by the Canada Health Act. The spirit of the reciprocal billing agreement and cost of enforcement will also be considered when the Department attempts to recover outstanding payments.

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Chapter 5 INFORMATION MANAGEMENT 5.4 pg 32 & 33	The Department should develop an information strategy to assess system capabilities against information needs. This should include both the Departments and the Boards' needs. If the Department intends to use diagnostic and treatment data to evaluate the health status of residents and determine health care delivery, then the two systems should be merged into one complete data base.	Information management strategy (or five year plan) is being developed by Health Management systems (HMS).	The first phase of a Northern Health Information system addressed changes to the Health Insurance Information System. These changes were required to support decentralization of Health Insurance to Rankin Inlet and Inuvik. The Informatics Strategy for the GNWT will provide a framework for all information needs of the GNWT. In addition, the Department is exploring the possible use of tele-medicine to assist with patient diagnosis and treatment plans.
Chapter 5 INFORMATION MANAGEMENT 5.5.3 pg 34	The Department should improve the overall quality and timeliness of information and the sharing of pertinent information with all parties on the basis of need. Then it should encourage all managers to become familiar with information from other divisions and Boards.	Agreed.	The Department has decreased the turn around time for processing community health centre reports. When computers are located in the health centres, the flow of information will be greatly enhanced. The GNWT Informatics Strategy will take into account the quality and timeliness of information. A Health Board Financial System has been approved and will be implemented in all Boards by the fall of 1994.

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Chapter 5 INFORMATION MANAGEMENT 5.5.4 pg 34 & 35	1. The Department should consider updating its entire system. Present-day technology, including relational data based systems, may help to improve significantly the information available for managers.	1. Agreed.	The concerns expressed by the Auditor General have been addressed in a report prepared by Coopers and Lybrand, proposing an information strategy for the GNWT.
	2. The Department should seek efficiencies through data sharing whenever possible.	2. Agreed.	
	3. The Department should negotiate with Safety and Public Services to seek agreement, and will develop appropriate methods to collect, process and share the data on a timely basis.	3. The Department will review this recommendation with Safety and Public Services and seek a resolution.	An inter-departmental review of problems arising from vital registrations is under way.

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Chapter 5 INFORMATION MANAGEMENT 5.6 pg 35 & 36	1. The Department should consider a new mandate for the Legislation & Policy Division so that it can become proactive in developing new initiatives in consultation with the Boards and other government Departments and entities. The Department should consider making tactical and strategic planning a responsibility of this group. 2. Boards should consider sharing their internal policies.	1. The functionality and mandate of the Legislation & Policy Division will be determined in an overall functional review and the clarification of roles and accountabilities. 2. The Department will set up a mechanism with the Boards to share policies.	This recommendation is being considered under the Functional Review. A final report of the Functional Review will be presented to the Steering Committee (Secretary of the FMB, and the Deputy Minister and Assistant Deputy Minister of Health) by March 31, 1994. An inventory of Board policies has already been established. The Department will be investigating the feasibility of electronic transmission of policies with the Boards.

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Chapter 5 INFORMATION MANAGEMENT 5.7 pg 36 & 37	1. The Department and the Boards should decide whether to standardize the Board accounting systems, and if so, which system to use. It should also provide appropriate training for Board staff to make sure that they can operate the system effectively. 2. The Chart of Accounts should reflect the allocation of authority to act and spend to the specific positions in the Department and Boards.	Agreed. The Department is currently working on this in cooperation with the Boards.	A new Health Board Financial System has been approved and will be implemented by fall 1994. This recommendation was addressed under the new Health Board Financial System. The Department utilizes the GNWT Chart of Accounts.
Chapter 6 CAPITAL ASSETS 6.2 pg 39 & 40	The Department should: - specify the criteria that should be used in defining and assessing capital needs; - establish policies for facilities and equipment maintenance; and	Agreed.	This recommendation is addressed through the GNWT 20 Year Capital Needs Assessment. All health facilities maintained by the Department of Public Works and Services are operated in accordance with an approved Maintenance Management System. Stanton Yellowknife Hospital and H.H. Williams Memorial Hospital have their own maintenance staff and maintain the facilities with approved maintenance management systems. Each Board is responsible for the necessary service contracts for the inspection, testing and routine maintenance of bio-medical equipment.

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Chapter 6 CAPITAL ASSETS 6.3 pg 40	**The Department should:** - **ensure that project follow-up inspections are carried out for all capital projects using standard criteria.** **The Department should set up an inventory system for its capital assets, to be maintained according to rules set out by the Government.**	The Department is actively pursuing the establishment of a standardized controllable asset tracking system for Health Boards.	All capital projects are routinely inspected (warranty inspection) during the immediate 12 months after project completion. This is primarily a technical inspection. A Post Occupancy Evaluation (POE) is usually completed 18-24 months after project completion. One of the primary goals of POE is to provide an indication of how the facility is being used, as compared to how it was meant to be used by the functional program. All Hospital/Health Boards have asset inventories. The controllable assets tracking system (CATS) has been initiated in six of eight Health and Hospital Boards across the NWT. A strategy is in place to complete the implementation in the Kitikmeot and the Keewatin region in the fiscal year 1994/95.
Chapter 7 FINANCIAL ISSUES 7.3 pg 41, 42 & 43	1. **The Department and the Boards should establish a better method of developing budgets and then reporting expenditures against them. The reporting process should allow and require corrective action during the fiscal year.** 2. **The Department should set up a clear accountability for reporting and corrective action, and should make periodic reports to the FMB.** 3. **Departmental managers should monitor and analyze the costs of supporting budget requests.**	The Department will review existing operations in respect of the recommendations being made.	The current O & M calendar has created problems for Board budgeting. At a meeting on February 1 and 2, 1994 between the Minister of Health and the Boards, a Tri-partite working group (Boards, Department and FMBS) was established to review and make recommendations to the Minister to facilitate preparation of the 1995/96 OPPLAN. The new Health Board Financial System include a standard chart of accounts and accounting guidelines will facilitate reporting of expenditures and analysis of costs. This recommendation will also be addressed through the MOU process.

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Chapter 7 FINANCIAL ISSUES 7.4.3 pg 45	**The Departments should ensure that all medical travel claims agree with policy and that the reasons for all medical travel are set out on the travel form.**	Personnel: The Department of Personnel revised its Medical Travel Assistance guidelines and forms in September 1992, to address the need for additional information to ensure compliance with policies. The Department now requires medical practitioners to identify the closest centre where treatment is available. Medical Travel Assistance expenses are limited to the closer of the point of departure or the nearest centre.	The Department of Health has tightened up procedures to ensure that medical travel claims are paid according to policy. Patient referral staff in the Boards question and seek prior authorization for any travel that may seem to be outside the policy. Travel Warrants are audited within the Department to ensure that Patient Referral staff are providing travel according to policy. The reason for medical travel is detailed on the Department of Health travel form. The form is called the Certification for Medical Travel and includes a written and coded reason for travel.
Chapter 7 FINANCIAL ISSUES 7.4.4 pg 45	**The Department should require proof of attendance for all medical travellers.**	The Department requires proof of appointment prior to issuing travel warrants. Also, proof of attendance at appointments is mandatory before claims for meals and accommodation are processed.	Proof of appointment and attendance is a requirement under the medical travel procedures.
Chapter 7 FINANCIAL ISSUES 7.4.5 pg 45 & 46	**The Department should discuss with Personnel whether they can save resources by consolidating the two medical travel programs.**	Health - Agreed. Personnel - Agreed.	Consolidation within the Department of Health of the two medical travel programs will be accomplished during 1994/95..

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Chapter 8 MANAGEMENT REPORTING AND ACCOUNTABILITY 8.2 pg 47 & 48	1. In order to make the most effective use of the MFRS system, senior management should give basic guidelines and then encourage division managers to develop the achievement criteria. These should include clear MFRS objectives and targets, along with appropriate indicators. Executive managers should ensure that division managers use and report the MFRS system properly. 2. Whether or not division managers use and report the MFRS properly should be a key indicator for measuring their performance.	The Department will review its use of the MFRS system and address deficiencies as appropriate.	The Department is aware that its Management For Results System (MFRS) should emphasize the measurement of results in achieving defined goals and objectives, and that the monitoring of results is as important as the monitoring of expenditures and revenues. The Department has begun a process of improving its MFRS with a view to making it a more useful tool for headquarters and Board managers to compare results with resources, and with the intention of fully integrating it into the budgeting and financial reporting systems. Training courses have been offered to Department of Health staff and to Board staff throughout 1993. Reporting on MFRS is a key responsibility of all managers.
Chapter 8 MANAGEMENT REPORTING AND ACCOUNTABILITY 8.3 pg 48 & 49	The Department should work with the Boards in assessing client needs and developing evaluation tools to ensure that goals and objectives are achieved through a spirit of cooperation and consensus. They will also need mechanisms for cooperation and consensus if the spirit is to thrive.	Agreed.	This objective is pursued through community health profiles and regional plan as a collaborative adventure.